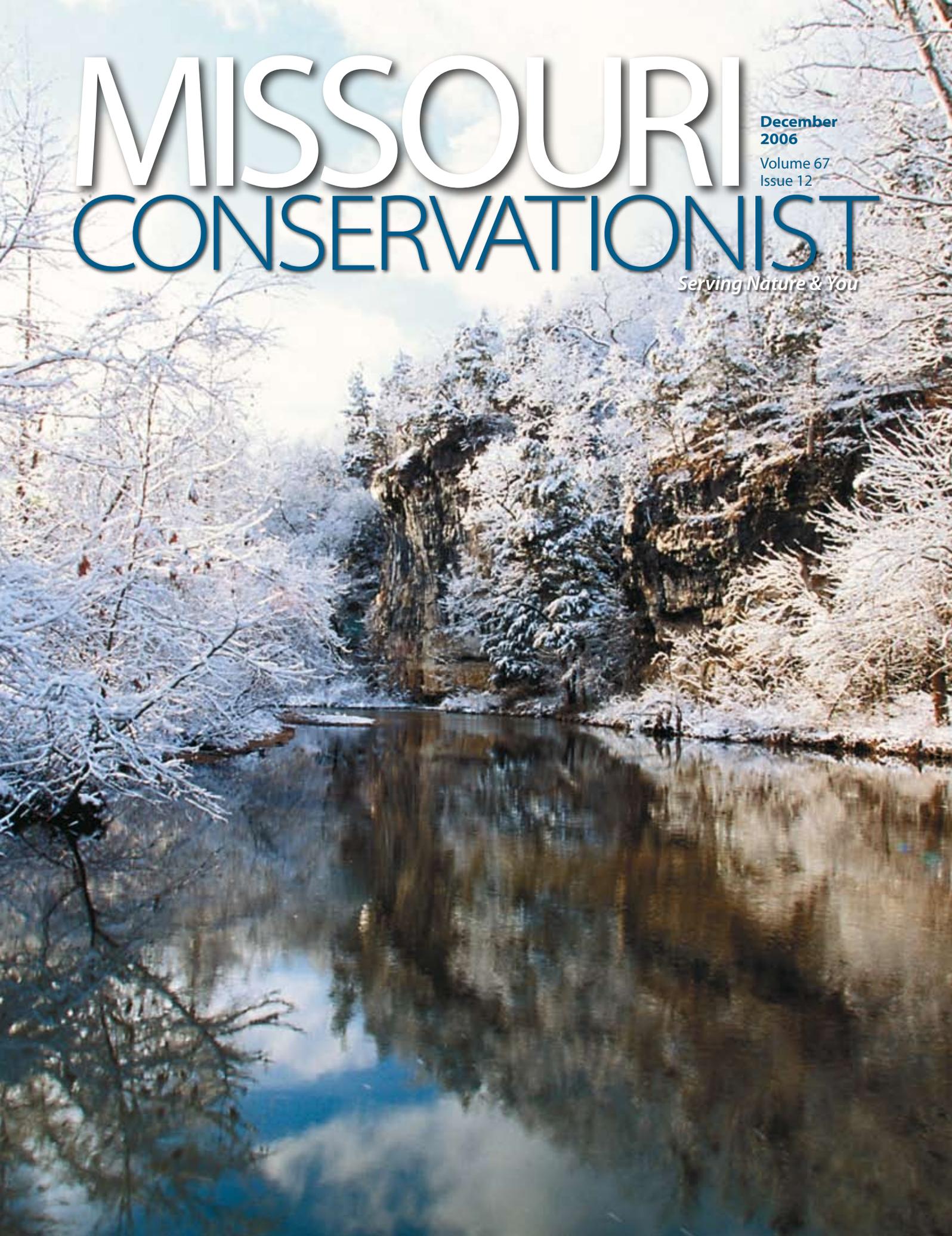


MISSOURI CONSERVATIONIST

December
2006

Volume 67
Issue 12

Serving Nature & You



Vantage Point

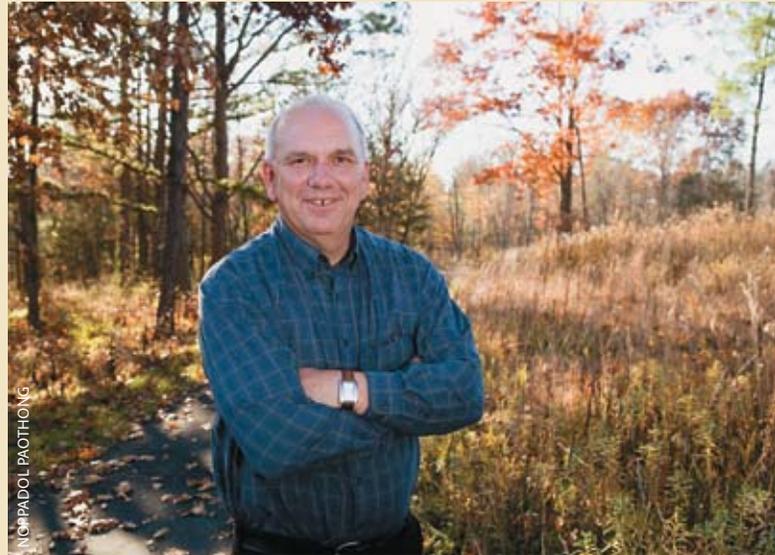
Missouri's Outdoors is Threatened

There is no doubt hunters have led, encouraged, funded and supported the restoration of many species of wildlife in Missouri and elsewhere. As a hunter, I take pride in this point. Consequently, it is with alarm and concern that I report that some members of the hunting community have engaged in surreptitious efforts to establish feral hog populations in Missouri's fields and forests. This is unfortunate because the free-ranging version of the domestic hog is a harmful species that does not belong in the wilds of our state. Feral hogs pose threats to agriculture by crop depredation, and their transmission of diseases jeopardizes the livestock industry. Hogs' feeding habits and their destructive rooting behavior threaten native plants and animals, including a wide range of game and special-status species.

Feral hogs occur throughout much of the southern United States, where landowners and habitat managers wish they could wake up from a bad dream and have hogs disappear from the outdoors. This hasn't happened, despite tremendous efforts at eradication.

Recently, states outside the established range of feral hogs, including Missouri, have experienced a surge in covert hog introductions. Quite curiously, these "pop-up" populations don't show the characteristics of normal range expansion in which adjacent unoccupied areas are populated by animals from a nearby source. Instead, they show up in widely scattered locations, often hundreds of miles from other hog populations. There is little doubt the introduced animals made these jumps as livestock trailer cargo released under the cover of darkness—actions which are highly illegal in Missouri. Also of interest, the introductions occur most often on Missouri's public lands, suggesting that those who release them hope to pursue them for sport purposes.

The Department of Conservation and other public land agencies now spend considerable staff energy and funds to control hog populations—resources better devoted to more desirable programs. Hogs are difficult to control. They respond to traps and disturbance in ways that make successive attempts even more difficult. Shooting and hunting seem to have limited long-term impact, with the animals adjusting their behavior to private lands, darkness, or both. And, feral hog reproductive potential is significant.



There are things Missourians can do to assist feral hog control. First, don't participate in hog hunting enterprises that serve only to fuel the demand for feral hog hunting. If you wish to hunt hogs, go south where your efforts will assist in controlling established populations. However, do recognize that under most circumstances Missouri regulations permit the taking of feral hogs while hunting other species. If you have the opportunity, shoot as many feral hogs on public lands as possible. The only exception to this would be if you encounter hogs in the vicinity of a baited hog trap. Disturbing hogs near trap sites will cause the animals to avoid the area and prevent the possible trapping of many animals. Finally, if you have information about illegal hog releases, contact your conservation agent or Operation Game Thief (1-800-392-1111). You may remain anonymous, and you may ask to be considered for a reward.

I will admit my reluctance to suggest that a part of the hunting community is responsible for introducing feral hogs; however, the evidence to date seems clear—hogs are being released with the hope that widespread feral populations will result. Missouri is keenly attentive to a law recently adopted in Kansas, which has experienced similar covert releases. The Kansas legislature took the step of banning hog hunting while making it possible for landowners to continue to destroy feral hogs that occur on their properties. Their hope, of course, is to remove the incentive that seems to be motivating the illegal releases.

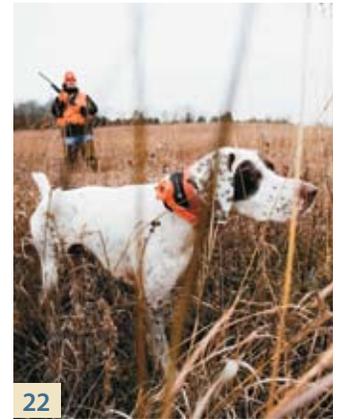
Dave Erickson, wildlife division chief



10



16



22



4

4 Better for Water, Better for Landowners, Better for Wildlife

A new partnership has big benefits for Missourians. **BY BILL WHITE AND MICHELLE MOTLEY, PHOTOS BY NOPPADOL PAOTHONG**

10 Missouri's Constrictors These snakes put the big squeeze on their prey. **BY TOM R. JOHNSON**

16 Don't Go With the Flow What we can do about stream bank erosion. **BY JASON PERSINGER AND BILL TURNER**

22 Quail Hunting Tradition A father's mission to pass on the excitement of hunting. **BY TOM DAILEY**

DEPARTMENTS

Reflections 2
2006 *Conservationist*
Index 26
News & Almanac 30

COVER

Clifty Creek on Clifty Creek CA in
Maries County—by Cliff White

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Phone: 573/522-4115 ext. 3856 or 3249

Address: Circulation

P.O. Box 180

Jefferson City 65102-0180

E-mail subscriptions:

Subscriptions@mdc.mo.gov

Online subscriptions and address changes:

mdc.mo.gov/conmag/subscribe

Cost of subscriptions:

Free to Missouri households

Out of State \$7 per year

Out of Country \$10 per year

Address Changes:

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Reflections

THANKS AGAIN, CARL

I just read the November 2006 issue with the article about Carl Engelbrecht [*Agent of Change*]. As a Missouri resident, I have hunted and fished and enjoyed our wildlife benefits for many, many years. Carl is a hero.

Over the years, I have been stopped or approached many times by conservation agents. To a person, they have been polite and professional. I have always admired them. They work alone, and they must deal with people carrying loaded firearms. That takes courage and commitment. Agents have done so much for all Missourians. So, to all the "Carls," thank you!

Rich Murray, St. Louis

A BIT OF HOME

We moved to southwest Missouri nine years ago. We have learned so much about this diverse state through the *Conservationist*. Thank you for provid-

ing this free educational magazine.

After we read our copy of the *Conservationist*, we include it in care packages to our son who is serving our country in Iraq. He enjoys the fishing and hunting articles. It's a little piece of home.

Lee & Angela Cox, Rockaway Beach

ARTIST'S FIN-ESSE

I never write, but our office rolled with laughter at Chmielniak's rendering of fish "carpal tunnel syndrome." [November 2006 issue, pg. 32]

Linda Underwood

Western Overseas Corp., Springfield

DON'T FORGET THE CAMERA

The News and Almanac story in the October issue titled "Coast Guard retiree still saving lives" was one terrific "fish story." I'm glad it was accompanied by a photo.

The article reminded me of a time

way back when I caught a fish with a water snake chomped down on the tail end of it. I landed them both, retrieved my hook, and put the two of them together back in the stream to carry on with nature's business. Wish I'd had a camera.

Fred Boeneker, Glendale

QUESTIONABLE CARRY

As a former Hunter Safety Instructor, an Instructor instructor, and hunter, I was disappointed to see the photo on page 14 of the November issue. The gun carry by two of the young people is completely unacceptable. They have no control of their guns in case of a stumble or fall.

Please don't print these kinds of photos in your fine magazine. Please have someone on staff take a Hunter Safety Course so they know what is acceptable and proper.

Randy Herberg, Wildwood



A FINE DAY FOR FISHING

Lake Taneycomo, near Branson, is Missouri's largest trout fishery. Both rainbow and brown trout are found throughout the 23-mile long reservoir. Shepherd of the Hills Fish Hatchery, near the upper portion of the lake, is the Department of Conservation's largest trout production facility. The hatchery typically produces 1,125,000 trout annually, weighing 301,000 pounds. Lake Taneycomo receives 700,000 trout per year. Both human and bird anglers take advantage of that bounty in this photo submitted by Darrell Lundberg of Branson.

Editor's note: Randy, thank you for your concern and diligence. We ran the picture by our hunter education experts and they said that, considering the circumstances, the kids are carrying the guns about as safely as they can—with the one caveat that the kid in the center should have his hand gripping the rear stock as the kid on the left does. Since the kids are essentially surrounded, with people on all sides of them, our hunter ed experts said that the safest place for the muzzle to be pointing is straight up, which rules out most of the accepted carries. So what they are doing, a sort of modified shoulder carry so that the muzzle points straight up, is probably the safest thing they can do under the circumstances.

GO PLAY OUTSIDE

This is in response to "No child left indoors," in the October issue [*Learning Outdoors*; Vantage Point]. I instilled a love of the outdoors in my son and

daughter. I have tried to instill in my grandson, Kyron, age 5, and now my granddaughter, Maya, age 16 months, a love for the wonderful Missouri outdoors, as well.

Kyron and Maya like leaves, rocks, acorns, trees, butterflies, some bugs, birds, squirrels and deer. We view all of these in our backyard and neighborhood. We recently saw and heard a flock of passing geese. Even Maya looked up

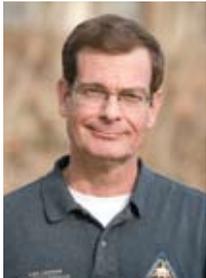
when she heard the honking geese.

On October 4, the day before my daughter Jennifer's birthday, we went on a nature walk. Kyron wanted to find a present for his mom. We picked up rocks, pretty fall leaves, wildflowers, bark and acorns. We filled a container to look like a shadow box. We then took it to Jennifer, who was thrilled with her birthday present.

Connie Gorig, Warrensburg

The letters printed here reflect readers' opinions about the Conservationist and its contents. Space limitations prevent us from printing all letters, but we welcome signed comments from our readers. Letters may be edited for length and clarity.

Ask the Ombudsman



Q: We just started burning wood. What's a cord? What's a rick? And what is the best kind of wood to burn?

A: A cord of firewood is 128 cubic feet. This is equivalent to a tightly stacked pile that measures 4 feet wide, by 4 feet high, by 8 feet long.

The University Extension advises against using terms such as rick, rank and face cord. These terms and the quantities

associated with them vary between dealers and locations. By law, cordwood must be sold by the cord or fractional part of a cord. For more details on how to buy and sell cordwood, visit <http://muextension.missouri.edu/explore/agguides/forestry/g05452.htm>, or call your local University Extension office (usually located in your county seat).

Hardwoods, such as oak, hickory, ash, etc., burn hotter than softwoods, such as cedar and pine. Here's an excerpt from the February 1999 *Missouri Conservationist*: "Preferred firewood species, in order of decreasing energy content, are hickory, locust, oak, hard maple, ash, basswood, cottonwood, cedar, pine, silver maple, elm and sycamore. Of course, it's best to use only properly seasoned wood in an efficient, well-maintained stove or fireplace."

Another thing to keep in mind when purchasing and/or transporting firewood is the potential to spread exotic species that are harmful to Missouri's forests. Always try to use wood from local sources and keep an eye out for pests. For more information, visit www.missouriconservation.org/forest/features/firewood.htm to learn about and identify problem species, such as the emerald ash borer, Asian longhorned beetle, gypsy moth and the sirex wood wasp. If you find a suspect insect, please contact us (see page 1 for a list of regional office phone numbers).

Ombudsman Ken Drenon will respond to your questions, suggestions or complaints concerning Conservation Department programs. Write him at P.O. Box 180, Jefferson City, MO 65102-0180, call him at 573/522-4115, ext. 3848, or e-mail him at Ken.Drenon@mdc.mo.gov.

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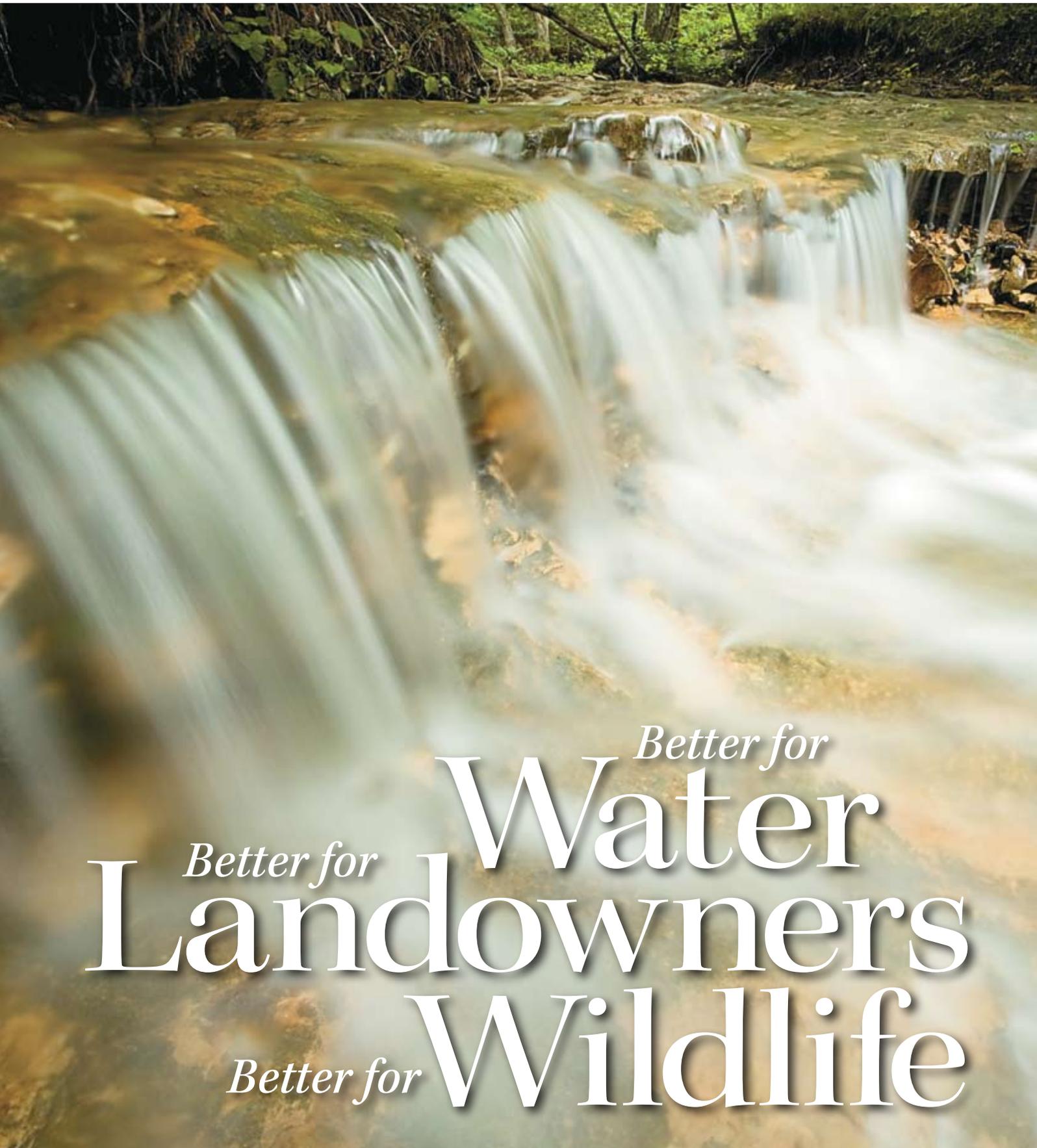
CIRCULATION Laura Scheuler

The *Missouri Conservationist* (ISSN 0026-6515) is the official monthly publication of the Missouri Department of Conservation, 2901 West Truman Boulevard, Jefferson City, MO (Mailing address: P.O. Box 180, Jefferson City, MO 65102.) Subscription free to adult Missouri residents; out of state \$7 per year; out of country \$10 per year. Notification of address change must include both old and new address (send mailing label with the subscriber number on it) with 60-day notice. Preferred periodical postage paid at Jefferson City, Mo., and at additional entry offices. Postmaster: Send correspondence to Circulation, P.O. Box 180, Jefferson City, MO 65102-0180. Phone: 573/751-4115. Copyright © 2006 by the Conservation Commission of the State of Missouri.

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Printed in USA

Printed on recycled paper with soy ink



Better for
Water
Better for
Landowners
Better for
Wildlife



The Conservation Reserve Enhancement Program (CREP) is a voluntary cropland-retirement program that helps landowners improve drinking water quality, protect public health, improve wildlife habitat and conserve soil and water in watersheds serving public drinking water supplies.

CREP achieves all of this by reducing pesticides in drinking water supplies, reducing sediment inflow and erosion rates, helping farmers meet nutrient reduction goals and providing wildlife habitat enhancement for the preservation of natural diversity in the state.

CREP projects are unique because they partner federal and state agencies with local interests to provide annual rental payments and incentives to landowners.

Missouri's first CREP agreement was put into action in 2000 through a partnership with the Missouri Department of Agriculture, the Missouri Department of Natural Resources, the USDA Natural Resources Conservation Service, public drinking water systems, landowners and the USDA Farm Service Agency (FSA). Through this CREP project, Missouri enrolled more than 14,000 environmentally sensitive cropland acres. These areas are in watersheds of public drinking water supply reservoirs.

A new partnership has big benefits for Missourians.

by Bill White and Michelle Motley,
photos by Noppadol Paothong



What is a watershed? It is the area of land that drains into a stream, river, lake or other water body. Looking north from Smithville Lake, northeast of Kansas City, you can see just a portion of its watershed. This drinking supply reservoir serves four rural water districts and the communities of Smithville, Plattsburg, Trimble and Edgerton.

“Missouri CREP is a major factor in assuring the long-term availability of a quality water supply for all patrons of Smithville Lake.”—D. J. Gehrt, Plattsburg city manager

Eugene Keats, county executive director for FSA, oversees the administration of CREP in DeKalb County. “People are usually confident their drinking water is safe, but are often unaware of what it takes to make it safe,” said Keats. It is costly for cities and rural water providers to treat water for contaminants, and this translates to higher water bills for citizens.

“CREP creates the proverbial win-win situation,” said Keats. “Cities win because good vegetative cover is filtering potential contamination from public reservoirs, reducing treatment expense and helping meet regulatory guidelines. John Q. Public Taxpayer wins because he is using safer, cleaner, more affordable drinking water. Government wins because it does not have to legislate more programs to clean up water supplies downstream from reservoirs, and the farmer wins because he receives just compensation for renting land that is protected from erosion while it enhances water quality.”

“We are renting the land to the government in return for preserving land, controlling erosion, protecting water quality and promoting wildlife. We are doing what we can to earn what we receive.”

—Carol Ellis of Amity



Carol Ellis, left, a landowner, speaks with Eugene Keats, DeKalb County Farm Service Agency executive director.

Plattsburg City Manager D. J. Gehrt agrees: “Missouri CREP is a major factor in assuring the long-term availability of a quality water supply for all patrons of Smithville Lake.” Smithville Lake, just north of Kansas City, provides the drinking water for residents of Plattsburg, Smithville and Edgerton. Gerht says tests of the water in Smithville Lake have shown that levels of

Lands Eligible for CREP

CREP is convenient for producers because it is based on the familiar, highly successful Conservation Reserve Program (CRP) model. With limited exceptions, land must be owned or leased for at least one year prior to enrollment to be eligible for CREP. The acres offered must be physically and legally capable of being cropped in a normal manner.

Land must also meet cropping history and other eligibility requirements. CREP enrollment is on a continuous basis, permitting farmers and ranchers to join the program at any time, rather than waiting for a specific sign-up period.

The CREP typically targets cropland acres. However, pasture acres adjacent to streams, ponds or other water sources can also be enrolled as either riparian tree buffers (CP22), wildlife buffers (CP29) or wetland buffers (CP30). Buffer widths on pastureland depend upon the practice and can range from a minimum of 25 feet to a maximum of 120 to 180 feet.

The following are eligible practices:

- *Native Grass Establishment* (CP2)—Plant warm-season grass for cover
- *Wildlife Habitat Establishment* (CP4D)—Plant warm-season grass and shrubby cover for wildlife
- *Grassed Waterways* (CP8A)
- *Grass Cover Already Established* (CP10)—Re-enroll warm-season grass established in previous CRP signups
- *Contour Grass Strips* (CP15A)—Plant grass strips alternated with wider cultivated strips
- *Grass Filter Strips* (CP21)—Plant grass buffers 25'–120' wide adjacent to water sources
- *Riparian Buffer Strips* (CP22)—Plant buffers to trees 50'–180' wide adjacent to water sources
- *Wetland Restoration* (CP23)—Restore the functions of wetland ecosystems
- *Rare and Declining Habitat* (CP25)—Establish oak savanna or prairie habitats
- *Wildlife Habitat Buffers on Pasture* (CP29)—Establish wildlife-friendly buffers adjacent to water sources
- *Wetland Buffer on Pasture* (CP30)—Establish wildlife-friendly buffers on wetland soils adjacent to water sources
- *Bottomland Timber Establishment on Wetland Acres* (CP31)—Plant hardwood trees
- *Habitat Buffers for Upland Birds* (CP33)—Establish warm-season grass buffers around cropped fields to benefit bobwhite quail and other grassland birds



JIM RATHER

As a new partner in CREP, the Department hopes to restore habitat for grassland birds like this dickcissel.

the corn herbicide atrazine have steadily dropped. This has saved the city and water customers the added cost of filtering this herbicide from their drinking water.

Donald Graeff of Osborn raises corn and soybeans in the watershed that drains into Smithville Lake. Graeff thinks CREP is a great program. “I feel CREP has cut down on the sediment going into Smithville Reservoir,” said Graeff. “I think it will take more time to see the long-term results of CREP. Not everyone is in the program, but atrazine readings in Smithville Lake have been down.”

Tim Kelley, state executive director for FSA in Missouri, believes that CREP is also “a win-win-win for the natural resources that make Missouri a great place to live—the soil, water and wildlife.” And that is why Carol Ellis of Amity likes what CREP has done for her land. “We are renting the land to the government in return for preserving land, controlling erosion, protecting water quality and promoting wildlife,” she said. “We are doing what we can to earn what we receive.”

A few miles north of where the Smithville Lake watershed begins is the watershed that drains into the City of Maysville Reservoir. There, said Ellis, her land, “is providing sediment control for the reservoir, and I feel the wildlife population has increased. I am seeing quail, and for awhile I didn’t. I feel this program is doing something.”

Missouri Department of Agriculture Director Fred Ferrell said, “Missouri farmers are using some of the most environmentally friendly farming techniques in



This Wetland Restoration practice (CP23) provides storage for floodwaters, helps the producer mitigate crop losses from frequent flooding, improves water quality and attracts migrating wetland wildlife.

history, yet each year we attain record or near-record yields. Conservation and agriculture go hand-in-hand.”

The Missouri Department of Conservation is a new addition to the CREP partnership and will allow the program to expand to almost one-third of the state and enroll up to 40,000 acres. MDC is committed to provide \$1 million in direct payments to landowners to match up to \$50 million in federal monies in CREP. This money is part of MDC’s efforts to increase funding

“Missouri farmers are using some of the most environmentally friendly farming techniques in history, yet each year we attain record or near-record yields. Conservation and agriculture go hand-in-hand.”

—Missouri Department of Agriculture Director Fred Ferrell



The strip of grass along the hedgerow is the Habitat Buffer for Upland Birds practice (CP33). It helps the farmer recoup lost crop production from the shading and sapping effect of the trees and makes excellent quail habitat.

for restoration of bobwhite quail and other grassland birds, such as the state-endangered prairie chicken. The Department of Natural Resources (DNR) will provide an additional \$2.5 million to landowners for signing incentives and cost-share payments.

Landowner Benefits

For the landowner, CREP can be more than just a cost-effective way to address rural environmental problems and meet regulatory requirements; it can provide a viable supplement to farm income as well.

Landowners can enroll qualifying acres into CREP in exchange for annual rental payments and incentive payments, plus additional help to establish practices.

On average, CREP annual rental payments for producers can run from \$85 per acre to more than \$100 per acre per year. Additional sign-up incentive payments provided by the state partners can equal from \$125 to more than \$350 per acre depending on the soil type and the location of the acres.

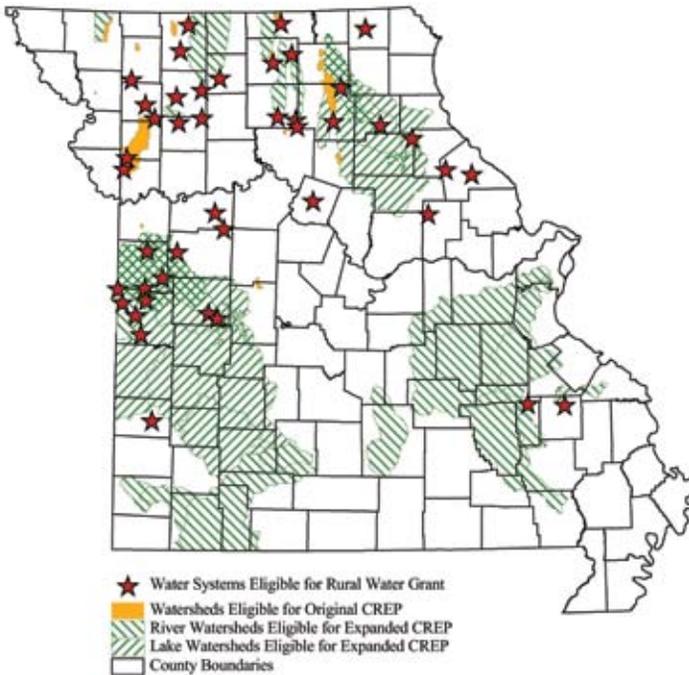
The expansion of CREP to include new river and lake watersheds (see map) brings statewide opportunities for landowners and farmers wishing to improve wildlife habitats and drinking water supplies. ▲

Are you in a CREP watershed?

For more information on improving your land with CREP, visit your local Farm Service Agency office. Landowners can apply for the program at local USDA Farm Service Agency offices.

Estimated CREP Payment On 1 Acre Enrolled in the Riparian Buffer Strips On Cropland Practice (CP22)

FSA Annual Soil Rental Payment	1 Acre	X \$85 average payment per acre	X 20% Incentive=\$17 per acre	= \$102 per year
FSA Sign-up Incentive Payment	1 Acre	X \$100 per acre		= \$100 One-time payment
MDC Incentive Payment	1 Acre	X \$100 per acre		= \$100 One-time payment
Public Water Supply Grant * only where eligible	1 Acre	X \$85 average annual soil rental payment	X 150%	= \$127.50 One-time payment
TOTAL PAYMENTS				\$102 per year per acre for 15 years and \$327 in one-time payments per acre
Additional money is available from FSA and DNR for installing and maintaining the practice. Contact your county FSA office for more information.				



An additional one-time incentive of 150% of the annual soil rental rate is offered through the Department of Natural Resources (DNR) Rural Water Grant. Public drinking water systems, which qualify for this grant, are marked with stars on the watershed map. These water systems must have a signed agreement with the DNR in order for landowners to receive this payment.

Eligible drinking water systems include:

- | | |
|------------------------|-------------------------|
| Archie | Higginsville |
| Bates Co. PWSD #2 | Henry Co. PWSD #3 |
| Bethany | Henry Co. Water Company |
| Bowling Green | Holden |
| Breckenridge | Ironton |
| Brookfield | King City |
| Bucklin | Lamar |
| Butler | Macon |
| Cameron | Marceline |
| Cass Co. PWSD #7 | Maysville |
| Clinton | Memphis |
| Concordia | Milan |
| Creighton | Moberly |
| Daviess Co. PWSD #3 | Monroe City |
| Drexel | Plattsburg |
| Fayette | Perryville |
| Fredericktown | Rich Hill |
| Garden City | Savannah |
| Green City | Shelbina |
| Hamilton | Smithville |
| Harrison Co. PWSD #1 | Unionville |
| Harrisonville | Vandalia |
| Harry S Truman PWSD #2 | Wellsville |

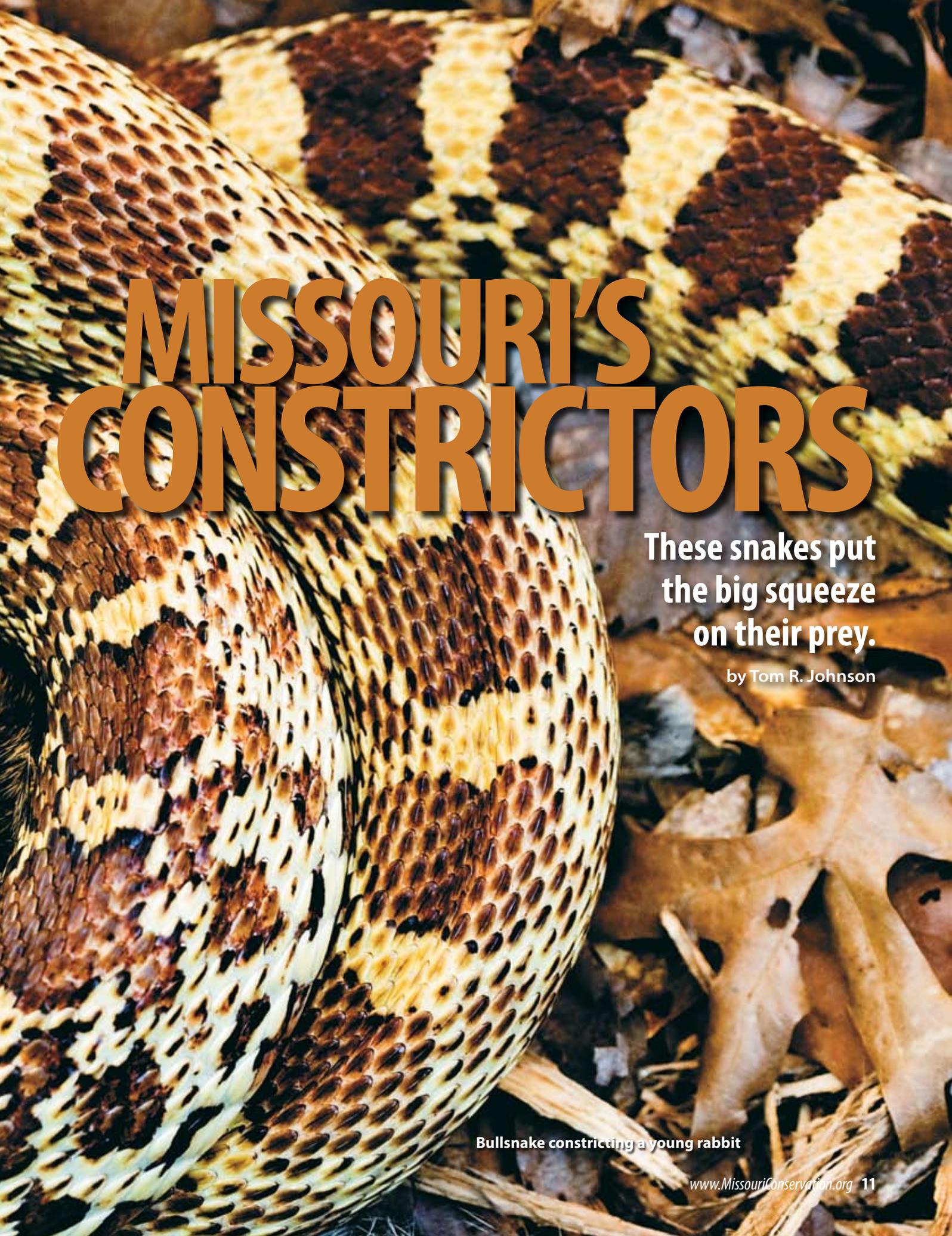


JIM RATHER

The upland sandpiper is one of the many species of grassland birds that will benefit from CREP practices.



NOPPADOL PAOTHONG



MISSOURI'S CONSTRUCTORS

These snakes put
the big squeeze
on their prey.

by Tom R. Johnson

Bullsnake constricting a young rabbit

You don't have to travel to a tropical country or visit a large zoo to see snakes that tighten coils of their body around their prey until it is dead. Of the 46 kinds of snakes native to Missouri, seven are considered true constrictors.

When we think of constrictors, we tend to think of those huge boa constrictors featured in movies or at zoos, but not all constrictor species are large snakes. Missouri's red milk snake, for example, averages only 20 inches long.

Other Missouri constrictors include the black rat snake, the western fox snake, the Great Plains rat snake, the bullsnake, the prairie kingsnake and the speckled kingsnake.

Missouri's constrictor snakes are all members of the "non-venomous" family, Colubridae. They mainly eat rodents, birds and bird eggs, but kingsnakes also eat lizards and other species of snakes.

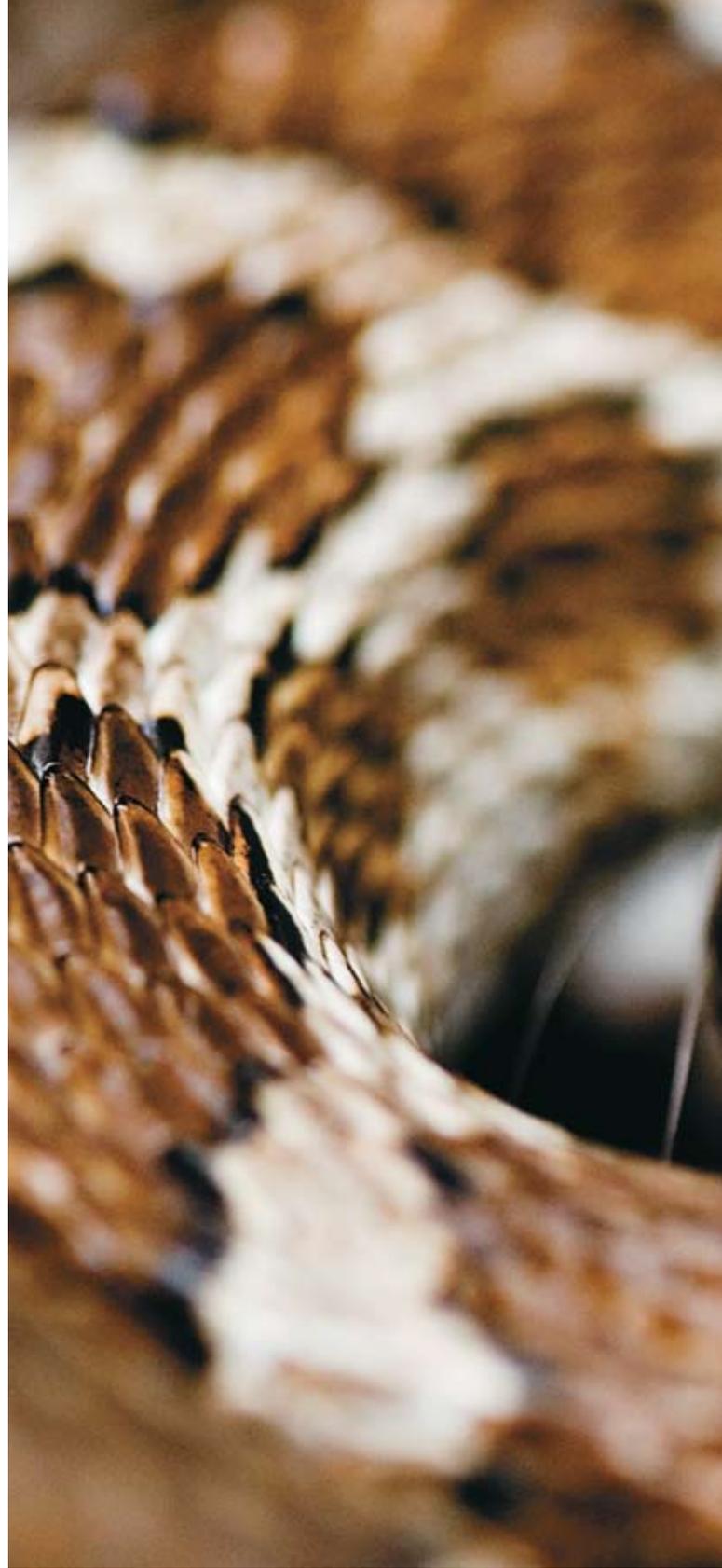
Constrictors don't crush their victims. Instead, they kill prey by suffocating it. For example, when a black rat snake grabs a deer mouse in its mouth, it rapidly wraps two or three coils of its body around the mouse and holds on, tightening whenever it can. This prevents the struggling deer mouse from breathing, and it quickly succumbs.

There is much value to a snake in the ability to kill its prey before devouring it. It not only secures the prey, but it reduces the victim's ability to hurt or damage the snake.

If you come across one of Missouri's constrictors, give it a wide berth and the respect it deserves as a valuable component of Missouri's wildlife.

Snakes that don't have this ability, such as water snakes or garter snakes, capture frogs, fish and rodents and hang on with their sharp, recurved teeth and start swallowing. Before it dies, however, large prey can inflict a lot of damage on a snake or, as often happens, the prey's struggles could free it.

It's important to know that constriction is for killing prey rather than for defense. Missouri's constrictor snakes bite to defend themselves, but the bite is non-venomous and usually little more than a scratch. These snakes also try to defend themselves by emitting a strong, musky odor from glands at the base of their tail. All of our constrictors vibrate their tail when alarmed as another defense measure.



Constrictors don't always use their suffocating grip to subdue prey. A good example occurs when fox snakes or prairie kingsnakes come across a litter of baby deer mice or nestling birds. Because the victims aren't able to get away or to inflict damage, the snakes usually just swallow them alive.



NO PPA DOL PAOTHONG

Like most species of native wildlife, Missouri's constrictors play a role in the natural system of checks-and-balances. Their ability to locate and consume nests of destructive rats and mice before the young grow up to damage buildings, crops, stored grain and other foods makes these snakes important controllers of rodents.

Rather than crushing its prey, this Great Plains rat snake is using its coils to gradually suffocate a deer mouse.

If you come across one of Missouri's constrictors, give it a wide berth and the respect it deserves as a valuable component of Missouri's wildlife. ▲

Missouri's Constrictors

Black Rat Snake (*Elaphe obsoleta*)

Missourians often call them “black snakes,” but the name for this species is black rat snake. These are shiny black snakes with white on the upper lip, chin and neck. Some may have faint dark-brown blotches. You can usually see some white and sometimes red between the scales. The belly is mottled with gray or checkered with black markings.

Young black rat snakes (first two years after hatching) are light gray with dark-brown or black markings.

Length may range from 42 to 72 inches, making the black rat snake one of Missouri's largest snakes. This species is well-known for its ability to climb trees. They are found statewide and live in a variety of habitats, including rocky wooded hillsides, wooded riverbanks, in or near farm buildings and in large brush piles.



Black Rat Snake

Great Plains Rat Snake (*Elaphe emoryi*)

Great Plains rat snakes have a light gray background color that is covered with black-edged, brown blotches. There is a dark brown stripe between the eyes that extends along the sides of the head onto the neck. The belly is white with bold, squarish, black markings in a checkerboard pattern. This species ranges from 30 to 58 inches in length.

Great Plains rat snakes are found throughout the Missouri Ozarks and into western and northwestern parts of the state. They are commonly found on rocky, sparsely wooded hillsides, in or near abandoned farm buildings and in the vicinity of caves. Rodents are an important food, but this species is also known to eat bats.



Great Plains Rat Snake



Western Fox Snake

Western Fox Snake (*Elaphe vulpina*)

This close relative of the black rat snake has a tan or greenish-tan background color, and its body is covered with numerous dark-brown blotches. Its head often has an orange cast to it, which has caused some folks to misidentify fox snakes as copperheads. The belly is normally yellow and has distinct black, checkered markings. Western fox snakes are from 36 to 54 inches long.

Their name likely comes from the strong musky odor, similar to the smell of a fox, that they emit when defending themselves.

The fox snake is not a common snake in Missouri and has been added to the list of endangered species. It is found in northeast and northwest parts of the state, mostly around the edges of large natural marshes.

Bullsnake (*Pituophis catenifer sayi*)

This tan or cream-colored snake has numerous large brown or black blotches. Its tail appears to be banded, and its belly is yellowish with small dark-brown or black markings along the sides.

This is Missouri's largest species of snake, with adults ranging from 50 to 82 inches long. Bullsnakes will try to deter predators or threats by vibrating their tail and producing a loud hiss.

Bullsnakes are found in northern and western Missouri and are absent from the southeastern third of the state. They are commonly considered a prairie species, but this species also inhabits open woodlands of the Ozarks.



Prairie Kingsnake (*Lampropeltis calligaster calligaster*)

This species has a background color of tannish-gray or greenish-gray covered by blotches and saddles of brown or reddish-brown. The top of its head usually has a backward-pointing arrowhead-shaped marking. Its belly is yellow with rectangular brown markings. Hatchling prairie kingsnakes are light gray with dark-brown markings and look very much like baby black rat snakes. The length of this species is from 30 to 42 inches.

The reddish-brown markings of some prairie kingsnakes sometimes causes the misidentification of these snakes as copperheads.

The prairie kingsnake occurs statewide. It is usually found in grasslands, old fields, along the edge of woods and near farm buildings.

Speckled Kingsnake (*Lampropeltis getulus holbrooki*)

Often called the "salt-and-pepper snake," this handsome species is generally black, but each scale on its back and sides has a white or yellow spot, causing it to look speckled. Its belly is light yellow and covered with a pattern of irregular black markings. Length is from 36 to 48 inches. Their diet includes lizards, snakes—including venomous species—and rodents.

Speckled kingsnakes are common statewide. They live in a variety of habitats, including prairies, forest edges, rocky, sparsely wooded hillsides and farmlands.



Red Milk Snake (*Lampropeltis triangulum sypila*)

This is Missouri's smallest constrictor and one of the most colorful snakes in the state. Its background color is white or light gray, and its body is covered with red or orange markings bordered with black. It has a white belly that is strongly checkered with black. Its length ranges from 18 to 24 inches.

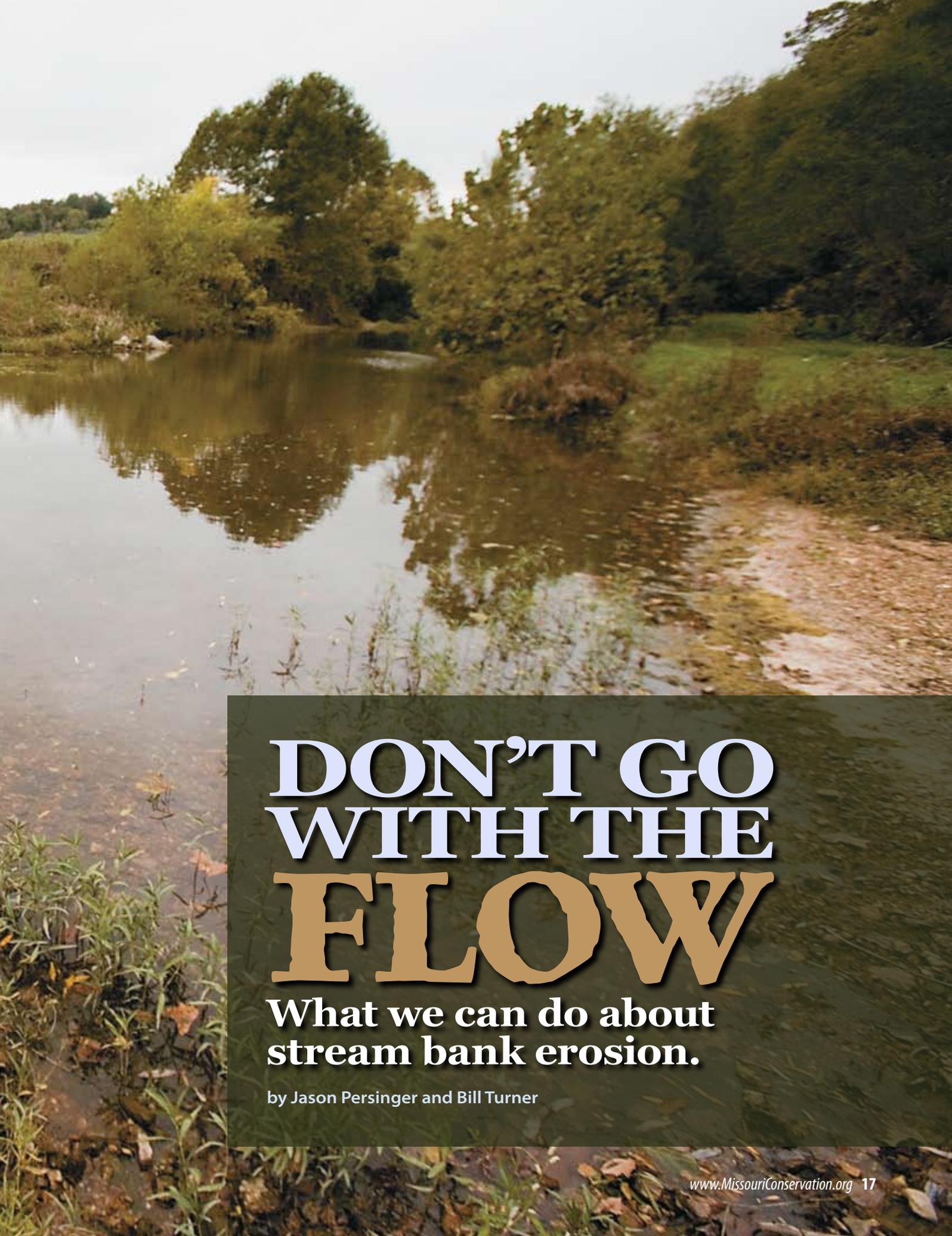
Red milk snakes are found statewide. They spend most of their time under rocks on open rocky hillsides. They can be confused with and somewhat resemble the venomous coral snake, but that species is not present in Missouri.





Chris Luebbert turned to MDC for help when erosion was destroying a stream bank on his family's farm.

CLIFF WHITE



DON'T GO WITH THE FLOW

**What we can do about
stream bank erosion.**

by Jason Persinger and Bill Turner



The faster and deeper water flows, the more power it has to cause erosion, which results in unstable stream banks.

Most rural landowners, and many urban landowners, have some form of stream running across or adjacent to their property. It may be as big as the Missouri River, or small enough to step over. In any case, water flowing through a channel will always cause some erosion. In healthy stream conditions this isn't a problem, but in other cases erosion may become excessive and cause serious damage in a short period of time.

Slow the flow

Stream banks with minimal erosion are considered stable. Unstable banks are those eroding at an excessive rate.

Flowing water has the power to pick up and move soil, sand, gravel and, sometimes, large rocks. The more powerful the flow, the more erosion it is likely to cause. In most cases, the faster and deeper the water flows, the more power it has to erode. So it makes sense that reducing the power of flowing water reduces stream bank erosion.

Stable stream banks in Missouri are usually covered with deep-rooted plants. This coverage continues onto nearby land, or stream corridors. Plants minimize erosion because they slow down the flow of water and their roots hold the soil in place. Streams that meander,

rather than flow in straight lines, also slow water flow and keep erosion in check.

People often increase the power of streams inadvertently. For example, they convert a portion of a stream's watershed from a healthy forest to an urban setting with many roads, parking lots and driveways. Rainwater that was once held by the forest floor and slowly released to the stream now runs off rapidly. The stream receives faster and deeper flows more often than in the past. This results in unstable stream banks and excessive erosion. It is also common for stream banks to become unstable when their vegetation is removed with heavy equipment or significantly reduced by livestock.

Treat the cause

Rather than simply treating the symptoms, it is important to diagnose the cause of unstable stream banks. This often requires the assistance of trained professionals. The Department of Conservation has helped landowners correct stream bank erosion for more than 15 years. Specially trained employees assist hundreds of landowners each year.

The Department has worked to develop practical stream bank erosion-control practices. These methods have high success rates and low maintenance require-

ments. They include cedar tree revetments and bendway weirs.

A cedar tree revetment involves anchoring a series of cedar trees at the base of a stream bank. This technique slows water flow against the bank to prevent erosion. A bendway weir is a structure made from large rocks that protrude into the flowing water at an upstream angle. This design directs flow away from the eroding bank. And finally, establishing a vegetated stream corridor is always recommended. A good corridor of soil-holding vegetation along streams is a key component of all practices.

Landowner success stories

Over the years, the Department's work with landowners has led to a number of success stories. One such story occurred on Little Maries Creek in Osage County.

The Luebbert family has owned their property since 1851, and Chris Luebbert is the sixth generation to live on the farm. In the mid-1990s, an erosion problem developed on his property. "Over a five- to seven-year period, I lost about 2 acres of a 30-acre bottom to erosion at this site," said Luebbert.

In 2000, he contacted the Department for assistance. Luebbert worked with Rob Pulliam, a fisheries management biologist out of the Sullivan office, as well as the U.S. Fish and Wildlife Service and the Natural Resources Conservation Service to develop a solution.

In the summer of 2001, a bendway weir project consisting of three weirs was installed to protect the eroding bank. Trees were planted the following spring to reestablish the stream corridor. Within two years, Luebbert could see a difference. "It's remarkable how quickly it started to heal," he said. "You wouldn't even be able to tell the first two weirs are there if you didn't know."

When asked if he would do it again, Luebbert said, "Without question. In fact, we are already talking about working on another bank on my property."

Another project was completed on C. Dale Murphy's property along the Little Bourbeuse River in Crawford County.

Like the Luebbert place, the Murphy farm has been in the family for generations. "My family homesteaded this land in 1865 and has been grazing cattle ever since," said Murphy. "We have been dealing with erosion problems along the Little Bourbeuse since I was a kid."

In 1996, Murphy contacted Kenda Flores, a fisheries management biologist out of the Sullivan office. In 1998, he fenced his cattle from the stream and started plant-



MATT MATHEWY

A cedar tree revetment, above, involves anchoring a series of trees at the base of a stream bank to slow water flow. Below, from left: C. Dale Murphy, and his wife, Emma, worked with Kenda Flores, a Missouri Department of Conservation fisheries management biologist, to fence out cattle and plant trees in a riparian corridor on the Murphys' property along the Little Bourbeuse River.



CLIFF WHITE



BOBBY JAMISON PHOTOS

This eroded stream bank segment, top left, was stabilized through the construction of rock weirs, top right. The finished project, bottom, shows vegetation regrowth. Soil-holding vegetation is a key component of all stabilization projects.

ing trees in the corridor. He, too, started seeing results within two years.

“We moved the cattle out, planted trees and let nature take the lead,” said Murphy. “We just followed. The difference is amazing. I am convinced that the cows kept the banks beat down and caused our problems.”

Murphy is also convinced of the value of vegetated stream corridors. “The riparian [or vegetated] corridor protects your banks not just from channel erosion, but also from water coming across your field,” he said.

“That corridor stops a lot of erosion. I am the fourth generation of Murphys to own this land, but I don’t really own it—I am just the steward until I pass it on to my kids. By doing this, I can really see that stewardship becoming a reality.”

Conservation area projects

In addition to working with private landowners, Department employees have also stabilized eroding stream banks on conservation areas across the state.

These projects improved the areas for all citizens that use and visit them, and they provided a proving ground for trying new techniques prior to suggesting them to landowners. Almost every technique recommended to landowners is first attempted on a conservation area.

Some of the first tree revetments that the Department constructed were built on Otter Creek, which runs through the Lamine River Conservation Area in Cooper County.

Beginning in 1989, Kent Korthas, area manager, and the Department's Stream Unit put in five cedar tree revetments. The project helped stabilize a large segment of the creek, and information collected by the Stream Unit over the years was used at other sites.

The Department has also learned a lot about what doesn't work. Some past attempts to control eroding stream banks have failed, and we have learned from those experiences. One important lesson learned is that every stream bank is influenced by the conditions of the watershed—both upstream and downstream. No part is isolated. Another is that erosion control is almost always costly. Preventing problems is far less expensive than repairing them.

The research continues

Despite many successes, the Department and private landowners are still looking for more options to stabilize eroding banks. There are limitations to the current techniques, and some only work on streams up to a certain size. Others can be cost-prohibitive for many landowners. In response, the Department is researching alternative techniques that are more universal and cost-effective.

The techniques being evaluated reduce costs by using more readily available materials and by changing designs to use less materials overall. Because we are using unproven materials in limited quantities, we are increasing the risk of failure compared to traditional techniques. The objective is to determine if significant cost and manpower savings can be achieved with an acceptable level of risk.

Due to the higher level of risk involved, the initial trials of these techniques will be conducted on Department lands rather than private properties.

Over the next two years, projects testing six different techniques will be installed at sites across Missouri. These projects will be monitored for several years across multiple high-flow events to learn as much as possible. The results will be used to improve our recommendations to landowners dealing with erosion problems. ▲



Erosion-control MYTHS

Some erosion-control practices just don't work. For example:

- Dumping junked cars, refrigerators, washing machines and other refuse into streams is not only unsightly and polluting, it does not stop erosion.
- Using heavy equipment to push gravel onto eroding stream banks does not work well because the flowing water easily washes the gravel-sized rocks away. The heavy equipment also disrupts the streambed, causing turbidity problems and destroying habitat.

For more information

If you are facing erosion problems on your property, contact your local Missouri Department of Conservation office for assistance (see page 1 for a list of regional phone numbers).



CLIFF WHITE



QUAIL HUNTING TRADITION

A father's mission to pass on the
excitement of hunting.

by Tom Dailey



Male bobwhite quail

My three pointers, Scout, Sal and Schug, were locked on quail. The moment before hunters press the birds to flush is magical. To me, there's nothing like the explosive escape of bobwhites. I hoped my sons-in-law, Shane and Jeremy, would feel the same.

"Shane, get ready," I whispered. "The birds could explode into the air any moment. Keep the safety on until you're ready to shoot at a bird."

Although my dogs didn't know it, their performance this day was helping to pave the way for another generation of hunting.

A decade earlier a previous generation of hunting dogs had led my daughters, Camela and Susanna, on their first hunting trip. Sandy, my wife, was pleased because it freed her from having to go on such adventures anymore.

Of the three women in my life, Camela liked hunting most. She hunted with me for bobwhites, pheasants and prairie chickens. She even developed notoriety as a hunter, appearing on television and in print. As a dad and a hunter, I was pleased that she was carrying on our hunting tradition.

Somewhere among her experiences, college, living in Chicago skyscrapers and moving among several states, however, she gave up hunting. I was disappointed. There's nothing worse than losing a hunting buddy, especially one who represents the future.

I did convince her to hunt one more time in 2001. That was when her picture was on the cover of the 2001 Missouri Hunting & Trapping Regulations booklet. Given that unusual circumstance, she agreed to hunt one more time. Her sister also decided to go, and we all headed to a shooting preserve.

Susanna carried her gun, but she never loaded it. Camela killed a pheasant and practically cried at the sight of seeing it dead. I figured it was time for stubborn old dad to close the chapter in the book, *Passing on a Family Quail Hunting Tradition*.

My hopes revived as our family grew. Susanna married Jeremy, Camela married Shane, and children—Austin, Makenna and Zealand—followed. I was hopeful I could rekindle the hunting tradition passed on to me by my dad.

Quail hunting, however, is not an easy sport for beginners. It is best practiced with trained dogs, and shooting

quail takes skill. Shane needed more training because he'd never fired a shotgun. After a couple of hours at the shooting range, he was repeatedly powdering the clay pigeons. Jeremy had recently bought his own shotgun and had a fair amount of confidence in his aim.

The next step was getting the guys into birds. I believed that if Jeremy and Shane experienced the thrill of following dogs on the trail of wild quail and, perhaps, shooting a few, they would be as hooked on quail hunting as I am.

As the Conservation Department's quail biologist, I know plenty of good quail hunting places, many on conservation areas. I was fortunate, however, in that I was one of the winners in the Department's annual lottery for special quail hunts on the Dan and Maureen Cover Prairie Conservation Area, which is near Koshkonong, south of West Plains.

The late Dan Cover created a 745-acre quail haven that he and his wife, Maureen, donated to the Conservation Department in 1999. Dan had encouraged the Department to create opportunities like the special quail hunts for the public to enjoy one of the best pieces of quail real estate in Missouri.

After my name was drawn, I was allowed to pick one day for hunting. I chose Jan. 2. That's the day we were all in the field with the dogs on point.

As we waded slowly into the native grass, a single bird erupted. The dogs lunged forward, and the boys raised their shotguns. Jeremy, with lightning-fast reflexes, shot twice as the bird rocketed out of sight into the brush. Shane never got his gun fully mounted. He said the flushing bird took him totally by surprise. I guess it would have been nearly miraculous if he would have taken the first quail he'd ever flushed.

Although neither Shane nor Jeremy downed any birds, we had a great day in the field. We averaged a covey every 1.5 hours, plus a pointed turkey that gave us all a surprise. It was enough to implant the quail hunting bug in both of them.

Jeremy later told me that he liked bird hunting better than deer hunting because he didn't have to sit around and wait for the game to come to him. Shane said he also planned to include quail hunting in his future and to introduce his children to the sport.

Those were just the kind of reactions I was hoping for! More importantly, Jeremy's 4-year-old son, Austin, asked if he could go quail hunting.

GO QUAIL HUNTING

Many Missouri conservation areas have excellent habitat and lots of quail. When I'm planning a family quail hunt, I look for areas where hunting pressure is light. Quail become more difficult to find and flush as they experience more hunting pressure.

I have studied quail outfitted with radio transmitters and watched as hunters and their dogs walked right past them. Some quail hold tight in heavy grass, some run at the sound of approaching dogs or hunters, and some head deep into woody thickets that dogs seldom penetrate. Other birds flush "wild" as soon as they sense danger, and the hunters miss all the action.

It's not impossible to harvest quail on heavily hunted areas, it just takes a little more time—and different strategies—to locate coveys.

For information about quail hunting in your area, call your regional office at the phone number listed on this magazine's "Contents" page or visit the Conservation Department's Web site at www.missouriconservation.org.

Each October, the Ozark Regional Office conducts a drawing for 18 hunts on the Dan and Maureen Cover Prairie Conservation Area. Each hunt is limited to four hunters, and the total bag limit is four quail. Call 417/256-7161 for more information.

With these new recruits, I'm fairly certain our family quail hunting tradition will continue. Year after year, I'll be out in the fields with my sons-in-law and grandchildren. We'll cover lots of miles toting shotguns behind the dogs, and we'll certainly harvest more than a few quail.

We'll make memories, have fun and spend lots of time together outdoors. Although it's a lot of effort, creating a family quail hunting tradition in Missouri doesn't really seem like work at all. ▲



From left: Tom Dailey and his sons-in-law, Jeremy and Shane.

2006 Conservationist index

Birds

- 10th Vulture Venture Feb. 25**, by Jim Low, Almanac, Feb.
Beaks Formed for Feeding, by Bonnie Chasteen, Outside In, Feb.
Belle FFA Bluebird Conservation Work, by Jim Low, Almanac, April
Birds of a Feather..., by Dave Erickson, Aug.
DU Announces Largest Wetland Conservation Campaign in History, by Jim Low, Almanac, Oct.
DU Honors Missouri, by Jim Low, Almanac, Aug.
Duck Counts, by Joan McKee, Outside In, Nov.
Eagles Return to Wild at State Capitol, by Jim Low, Almanac, Feb.
Governor Proclaims Bird Conservation Day, by Jim Low, Almanac, July
Just Ducky Field ID, by Bonnie Chasteen, Outside In, Nov.
Midway Kids Launch Housing Project for Birds, by Jim Low, Almanac, Nov.
Missouri Bluebird Society to Meet, by Jim Low, Almanac, Sept.
Missouri Eagle Population Booming, by Jim Low, Almanac, Sept.
Missouri Renews Its Commitment to Waterfowl Nesting Habitat, by Jim Low, Almanac, June
Missouri's Bird Flu Risk from Wild Birds Very Low, by Jim Low, Almanac, Aug.
Planning for Prairie Chicken Recovery, by Jim Low, Almanac, Oct.
Purple Martin Mania, by John Miller, March
Set up a Feeding Station, by Bonnie Chasteen, Outside In, Feb.
Sneak a Peek at More Beaks, by Bonnie Chasteen, Outside In, Feb.
Web Site Connects Birding Partners Worldwide, by Jim Low, Almanac, Aug.
Where are the Ducks?, by Andrew Raedeke and David Graber, Jan.
Wings of Spring Festival is April 29, by Jim Low, Almanac, April

Editorials

- Cooperative Conservation**, by Roger Hansen and John D. Hoskins, Vantage Point, June
Finding the Balance, by Stephen J. Wilson, Vantage Point, Aug.
Fish Castles, by Steve Eder, Vantage Point, Jan.
Going Once, Going Twice... Sold!, by Carter Campbell, Vantage Point, March
Important Places for Eagles and Chickens, by John D. Hoskins, Vantage Point, April
Laying the Foundation for a Bright Tomorrow, by John D. Hoskins, Vantage Point, Sept.
Learning Outdoors, by Lorna Domke, Vantage Point, Oct.
Little Things That Make a Big Difference, by John D. Hoskins, Vantage Point, Nov.
Missouri's Outdoors is Threatened, by Dave Erickson, Vantage Point, Dec.
Patience and Progress, by John D. Hoskins, Vantage Point, Feb.
Strength in Diversity, by Debbie Strobel, Vantage Point, July
The Interstate Wildlife Violator Compact, by Dennis Steward, Vantage Point, May

Education

- 2006 Endangered Species Walk/Run**, by Jim Low, Almanac, Aug.
Becoming an Outdoors-Woman Events, by Jim Low, Almanac, July
Educating the Educators, by Veronica Feilner, Feb.
Field Trip Grants Available, by Jim Low, Almanac, Aug.
Final Lewis and Clark Bicentennial Events, by Jim Low, Almanac, Aug.
Flora of Missouri, Volume II, Now on Sale, by Jim Low, Almanac, Sept.
For Feet That Never Leave Asphalt, by Robert W. Fluchel, Feb.
Lewis and Clark Journalists Launch Final Leg of Journey, by Jim Low, Almanac, June
Master Wildlifer Training, by Jim Low, Almanac, Feb.
Missouri Cleans up in State Fish Art Contest, by Jim Low, Almanac, Nov.
Missouri Trees Book Now in Field-Guide Format, by Jim Low, Almanac, April
Missouri Youth Wins National Junior Duck Stamp Art Contest, by Jim Low, Almanac, July
Missourians Dominate Youth Hunter Education Challenge, by Jim Low, Almanac, Nov.
Missouri's Outdoor Women, by Jim Low, Almanac, May
Native Plant Field Day Set for June 23, by Jim Low, Almanac, May

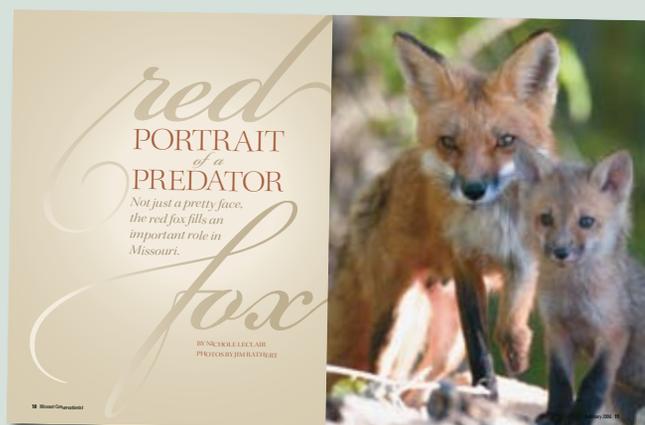
- New Book Helps Identify Prairie Plant Seedlings**, by Jim Low, Almanac, Aug.
Powder Valley's May Nature Programs, by Jim Low, Almanac, May
Prairie Day at Burr Oak Woods, by Jim Low, Almanac, June
Smithsonian Exhibit Shows What Native Americans, Pioneers Ate, by Jim Low, Almanac, Jan.
The Celebration Continues, by Ann Koenig, June
Updated Conservation Atlas, by Jim Low, Almanac, June
WOW in St. Louis, by Jim Low, Almanac, May
"Yes, you CAN" Contest Promotes Litter Awareness, by Jim Low, Almanac, Jan.

Fishing

- 2006 Record Fish**, by Jim Low, Almanac, Aug.
Black Bass Anglers to Hold Crappie Tourney Oct. 21, by Jim Low, Almanac, Oct.
Callaway County Crappie Tops State Record, by Jim Low, Almanac, June
Catching Big River Blues, by Danny Brown, June
CPR for Fish, by Kevin Richards, May
Fish May be Shorter Than They Appear, by Jim Low, Almanac, July
Free Fishing Weekend June 10-11, by Jim Low, Almanac, June
Grass Pickerel, River Redhorse Records Fall, by Jim Low, Almanac, March
Join National "Carp in" June 24, by Jim Low, Almanac, June
May's Stringerful of Fishing Events, by Jim Low, Almanac, May
No Doubting Thomas, by Tom Cwynar, Jan.
Northern Exposure, by Jim Low, March
Shortnose Gar Fishing Record Falls, by Jim Low, Almanac, Sept.
Welcome to Smithville Lake!, by Tom Cwynar, July
What, Where and When..., by Bill Anderson, Bob Legler, A.J. Pratt and Chris Vitello, April
Why Go to Wappapello?, by Tom Cwynar, March

Forestry

- Arbor Day Poster Contest Winner**, by Jim Low, Almanac, Aug.
Arbor Excellence Awards, by Jim Low, Almanac, July
Commissioners Celebrate Arbor Day, by Jim Low, Almanac, June
Communities Honored for Tree Care, by Jim Low, Almanac, June
Forestkeepers Share Extraordinary Tree Images Online, by Jim Low, Almanac, March
Lisa Allen is New State Forester, by Jim Low, Almanac, May
Order Tree Seedlings While Supplies Last, by Jim Low, Almanac, Jan.
Shortleaf Pine Symposium, by Jim Low, Almanac, Oct.
Shumard Oak is 2006 Arbor Day Tree, by Jim Low, Almanac, April
Time to Think About Arbor Day Poster Contest Entries, by Jim Low, Almanac, Oct.
Tree City USA Honors Missouri Communities, by Jim Low, Almanac, Oct.
Tree Farmers to Meet Feb. 24-25, by Jim Low, Almanac, Jan.



February 2006

Habitat

- Amazing Glades—Missouri's Mini Deserts**, by Joan McKee, Outside In, Aug.
Habitat Hint: Beneficial Blackberries, by Jim Low, Almanac, March
Habitat Hint: Cedar Lodge Bed and Breakfast, by Barbara Fairchild, Almanac, Jan.
Habitat Hint: Four Tips for Better Brush Piles, by Jim Low, Almanac, Aug.
Habitat Hint: Gaudy but Great for Birds, by Barbara Fairchild, Almanac, Sept.
Habitat Hint: Helping Bobwhite Quail Raise Families, by Jim Low, Almanac, May
Habitat Hint: Invite Hummers With Hot-Red Blossoms, by Barbara Fairchild, Almanac,

July

- Habitat Hint: Predator Protection**, by Jim Low, Almanac, Dec.
Habitat Hint: Rough-leaved Dogwood, by Barbara Fairchild, Almanac, Oct.
Habitat Hint: Water for Wildlife, by Barbara Fairchild, Almanac, May
Home, Soggy Home, by Joan McKee, Outside In, May
Smelly, Soggy, Super-Soaking Wetlands, by Bonnie Chasteen and Joan McKee, Outside In, May
The School and the Cavesnail, by Tom Cwynar, Sept.
Uncovering a Gem, by Tricia Radford and Aaron Jeffries, Oct.
Wade Into Missouri's Wonderful Wetlands!, by Bonnie Chasteen and Joan McKee, Outside In, May

- Where to See Missouri's Glade Hot Spots**, by Joan McKee, Outside In, Aug.
Woodland Wildlife, by Rhonda L. Rimer and Robert N. Chapman, June

Hunting

- 2005 Firearms Deer Season Final Tally**, by Jim Low, Almanac, Feb.
A-Hunting They Will Go!, by Elsa Gallagher, Nov.
Bowhunters' Annual Conclave Set for Feb. 3–5, by Jim Low, Almanac, Jan.
Cape Conservation Campus Plans Hunting and Fishing Day Event, by Jim Low, Almanac, Sept.
Deer Classic March 4–5, by Jim Low, Almanac, Feb.
Deer Hunters Can Help the Needy, by Jim Low, Almanac, Sept.
Deer Hunters Rebound After Slow Start, by Jim Low, Almanac, Jan.
Duck Bands Are More Than Just Cool Souvenirs, by Jim Low, Almanac, Nov.
Duck Into Web Site for Waterfowl Reservations, by Jim Low, Almanac, Aug.
Duck Zone Workshops, by Jim Low, Almanac, March
Generational Hunting, by Tom Cwynar, Sept.
Hunting Accidents Can Happen to Anyone, by Jim Low, Almanac, April
Hunting Gear Led Gains Among Sporting Goods Sales, by Jim Low, Almanac, May
Make Your Waterfowl Reservations, by Jim Low, Almanac, Sept.
Quail Hunting Tradition, by Tom Dailey, Dec.
Register by March 1 for Youth Chukar Hunt, by Jim Low, Almanac, Feb.
Second-Largest Youth Turkey Harvest, by Jim Low, Almanac, June
Spring Turkey Harvest Tops 54,000, by Jim Low, Almanac, July
Stand or Sneak?, by Tom Cwynar, Nov.
Surprise Ending, by Todd R. Pridemore, April
Teal Hunters Get 16-Day Season, by Jim Low, Almanac, Sept.
Telecheck Impresses Conservation Agents, Hunters, by Jim Low, Almanac, April
The Button Buck Dilemma, by Lonnie Hansen, Oct.
The "Firsts", by David Ulrich, Aug.
The Threshold of Goneness, by David Ulrich, Jan.
Turning Gobblers into Décor, by Jim Low, Almanac, April
Upper Mississippi CA Blind Drawing, by Jim Low, Almanac, June
Urban Deer Harvest Down, But Youth Harvest Up, by Jim Low, Almanac, Dec.
Whitetails in the City, by Debra Burns, Erin Shank and John George, Oct.

Law Enforcement

- Agent Notebook**, by Ric Bishop, Almanac, May
Agent Notebook, by Rob Brandenburg, Almanac, April



- Agent Notebook**, by Jim Brown, Almanac, June
Agent Notebook, by Christine Campbell, Almanac, Sept.
Agent Notebook, by Tom Cwynar, Almanac, Oct.
Agent Notebook, by Randy Doman, Almanac, Aug.
Agent Notebook, by Kurt Heisler, Almanac, March
Agent Notebook, by Michael Lancaster, Almanac, July
Agent Notebook, by Roger Peecher, Almanac, Feb.
Agent Notebook, by Russ Shifflett, Nov.
Agent Notebook, by Bill Stimson, Almanac, Jan.
Agent Notebook, by Jim Taylor, Almanac, Dec.
Agent of Change, by Francis Skalicky, Nov.
Agents in Action, by Brad Hadley and Steve Zap, Nov.
Long-time Agent Goes Out With a Wail, by Jim Low, Almanac, Nov.
Poachers Soon to Have Nowhere to Hide, by Jim Low, Almanac, Nov.

Miscellaneous

- 70 Years of Conservation**, by Jim Low, Almanac, Dec.
Annual Report Fiscal Year 2005, Jan.
Art Festival Nov. 4–5 in St. Charles, by Jim Low, Almanac, Oct.
Camping and Hunting Changes at Thomas Hill CA, by Jim Low, Almanac, June
Census Bureau Calling Missourians About Outdoor Activities, by Jim Low, Almanac, June
Coast Guard Retiree Still Saving Lives, by Jim Low, Almanac, Oct.
Conservation Partners Work to Make Missouri Firewise, by Jim Low, Almanac, Nov.
Conservationist of the Year, by Jim Low, Almanac, May
Cute as Buttons, by Jim Low, Almanac, Dec.
Explore Outdoor Possibilities, by Jim Low, Almanac, Jan.
Gift Ideas, by Jim Low, Almanac, Dec.
Lindenwood Shotgunners are National Champs, by Jim Low, Almanac, Oct.
Meet Joe Polka, by Lynn Youngblood, Aug.
Natural Gifts, by Jim Low, Nov.
Nature Lover Gail Oehrke Leaves Legacy, by Jim Low, Almanac, Nov.
Nominate Citizen Conservationists by June 15, by Jim Low, Almanac, May
Off-Road Developers!, by John Vogel, May
Powder Valley Getting a Birthday Makeover, by Jim Low, Almanac, Oct.
Prize-Winning Chef Offers Venison Cooking Tips, by Jim Low, Almanac, March
Sandbar Archaeology, by Jim Low, July
St. Louis Boat Show Feb. 7–12, by Jim Low, Almanac, Feb.
St. Louis RV Show, by Jim Low, Almanac, Sept.
State Fair Offerings, by Jim Low, Almanac, Aug.
Surplus Property Auction Set for Oct. 21, by Jim Low, Almanac, Sept.
The Grand Garden Experiment, by Holly Berthold, May
The Next Generation of Conservation, Sept.
The Next Generation of Conservation At Work, by Tom Cwynar, Sept.
The Seven-Year Night, by Joel Vance, Sept.
Three Missouri Chapters Make the DU President's Top 100 List, by Jim Low, Almanac, April

2006 Conservationist index

Trail Summit Set for Nov. 2–4, by Jim Low, Almanac, Aug.
Voyage of Literary Discovery Pays Off, by Jim Low, Almanac, April
Wheelin' Sportsmen Honors MDC, by Jim Low, Almanac, March

Natural History

Box Turtles and People, by Tom R. Johnson, July
"I Found this Plant...", by Tim Smith, May
Missouri's Constrictors, by Tom R. Johnson, Dec.
Mountain Lions in Missouri, by Dave Hamilton, June
Mussel Power, adapted by Joan McKee, Outside In, Nov.
Nature's Furry Wetland Engineers, by Joan McKee, Outside In, May
No Tiny Turtle, by Joan McKee, Outside In, Feb.
Portrait of a Predator, by Nichole LeClair, Feb.
The Buzz About Bugs, by Bonnie Chasteen and Mike Reinke, Outside In, Aug.
Tracking Hellbender Health, by Jim Low, Almanac, Jan.

Quail

2C Quail Co-op Promotes Community-Based Conservation, by Jim Low, Almanac, Jan.
A Walk in the Snow Reveals Quality Quail Habitat, by Jim Low, Almanac, Nov.
Blending Agriculture and Quail Management, by Jim Low, Almanac, July
Bobwhite Bullets, by Jim Low, Almanac, July
Bobwhites Aren't Allergic to Ragweed, by Jim Low, Almanac, Oct.
Burning for Bobwhites: Summer Fire Helps Control Woody Invasion, by Jim Low, Almanac, July
Lake of the Ozarks Home to Newest QF Chapter, by Jim Low, Almanac, Oct.
New Quail Unlimited Biologist to Focus Efforts in Northeast, by Jim Low, Almanac, April
New Quail Unlimited Chapter In Mercer County, by Jim Low, Almanac, March
QU to Fund Quail Coordinator's Job, by Jim Low, Almanac, July
Quail Academy Seeks Cadets, Chaperones, by Jim Low, Almanac, March
Quail Forever Chapter Spans Generations, by Jim Low, Almanac, April
Quail Unlimited to Hold National Convention in Kansas City, by Jim Low, Almanac, May
West Central QU Chapter Leads Nation, by Jim Low, Almanac, March
Whether Growing Corn or Quail, This Picture is Worth 1,000 Words, by Jim Low, Almanac, Sept.

Regulations

All About Captive Wildlife, by Benny Pryor and Tom Skinner, Aug.
Commission Changes Duck Zone Boundaries and Sets Early Migratory Bird Seasons, by Jim Low, Almanac, Aug.
Deer and Turkey Meetings in Southern Missouri, by Jim Low, Almanac, Jan.
Deer Seasons Set, by Jim Low, Almanac, Aug.
Turkey Season Timing, by Jim Low, Almanac, April
Waterfowl Hunting Changes, by Jim Low, Almanac, Sept.
Wildlife Code Changes, by John Smith, Feb.

Resource management

Buying Time for Endangered Species, by Rich Cook, Oct.
Damage Control, by Rex Martensen, Feb.
Golden Anniversary Wetland Initiative, by Gene Gardner, March
Grant Program Targets Urban Open Space, by Jim Low, Almanac, Nov.
Highway Wildflower Conversions, by Jim Low, Almanac, July
Johnson's Shut-Ins Damage Assessment Includes Fish and Wildlife, by Jim Low, Almanac, April
Kansas City's Blue River Rescue, by Jim Low, Almanac, March
Missouri Stream Team Reaches 3,000, by Sherry Fischer, April
Partnering for Fire Protection, by Jim Low, Almanac, April
Partnerships Put Conservation on the Ground, by Brian Loges, Aug.
River Management Symposium, by Jim Low, Almanac, May

Stream Team Tally Tops 3,000, by Jim Low, Almanac, Sept.
Timber Harvester Training, by Jim Low, Almanac, Dec.
Trash Bash on for '06, by Jim Low, Almanac, April
View Photos of the Damage at Johnson Shut-Ins Online, by Jim Low, Almanac, March
Warm, Dry Spring Increases Fish Kills, by Jim Low, Almanac, June
Wetlands Project Focus of Partnership Celebration, by Jim Low, Almanac, Oct.
Working Together for a Watershed, by Tom Cwynar, Sept.
Workshops Help Missourians Solve Goose Problems, by Jim Low, Almanac, Jan.

Private Lands Management

Agreement Puts \$90,000 at Landowners' Disposal, by Jim Low, Almanac, Dec.
Better for Water, Better for Landowners, Better for Wildlife, by Bill White and Michelle Motley, Dec.
CP33 Pays, by Bill White and Michelle Motley, Jan.
Conservation Contractor Workshops, by Jim Low, Almanac, Feb.
Conservation Contractors, by Jim Low, Almanac, June
Constructing With Care, by Cindy Garner, Oct.
Don't Go With the Flow, by Jason Persinger and Bill Turner, Dec.
Help for a Neighbor, by Tom Cwynar, Sept.
Learning From Our Landowners, by Brad McCord, May
MU Offers Woodland Workshops, by Jim Low, Almanac, July
Partnering for Wildlife, by Keith Wollard, July

Invasive Species

Autumn is Time to Watch for Forest Pests, by Jim Low, Almanac, Sept.
Invader Alert!, by Jeff Briggler and Joan McKee, Outside In, Feb.
Keep a Lookout for Missouri's Most Unwanted—the Zebra Mussel, by Jim Low, Almanac, May
Magic Pill Holds Promise for Zebra Mussel Control, by Jim Low, Almanac, June
Nonnative Nuisance, by Bob Gillespie, April
Rock Snot Creeping Up on Missouri's Southern Border, by Jim Low, Almanac, Jan.
Zebra Mussels, by Jim Low, Almanac, Aug.

Author Index

Anderson, Bill, Bob Legler, A.J. Pratt and Chris Vitello, *What, Where and When...*, April
Berthold, Holly, *The Grand Garden Experiment*, May
Bishop, Ric, *Agent Notebook*, Almanac, May
Brandenburg, Rob, *Agent Notebook*, Almanac, April
Briggler, Jeff and Joan McKee, *Invader Alert!*, Outside In, Feb.
Brown, Danny, *Catching Big River Blues*, June
Brown, Jim, *Agent Notebook*, Almanac, June
Burns, Debra, Erin Shank and John George, *Whitetails in the City*, Oct.
Campbell, Carter, *Going Once, Going Twice... Sold!*, Vantage Point, March
Campbell, Christine, *Agent Notebook*, Almanac, Sept.
Chapman, Robert N. and Rhonda L. Rimer, *Woodland Wildlife*, June
Chasteen, Bonnie, *Beaks Formed for Feeding*, Outside In, Feb.
Just Ducky Field ID, Outside In, Nov.
Set up a Feeding Station, Outside In, Feb.
Sneak a Peek at More Beaks, Outside In, Feb.
Chasteen, Bonnie and Joan McKee, *Smelly, Soggy, Super-Soaking Wetlands*, Outside In, May
Wade Into Missouri's Wonderful Wetlands!, Outside In, May
Chasteen, Bonnie and Mike Reinke, *The Buzz About Bugs*, Outside In, Aug.
Cook, Rich, *Buying Time for Endangered Species*, Oct.
Cwynar, Tom, *Agent Notebook*, Almanac, Oct.
Generational Hunting, Sept.
Help for a Neighbor, Sept.
No Doubting Thomas, Jan.

Stand or Sneak?, Nov.
The Next Generation of Conservation At Work, Sept.
The School and the Cavesnail, Sept.
Welcome to Smithville Lake!, July
Why Go to Wappapello?, March
Working Together for a Watershed, Sept.

Dailey, Tom, *Quail Hunting Tradition*, Dec.

Doman, Randy, *Agent Notebook*, Almanac, Aug.

Domke, Lorna, *Learning Outdoors*, Vantage Point, Oct.

Eder, Steve, *Fish Castles*, Vantage Point, Jan.

Erickson, Dave, *Birds of a Feather . . .*, Aug.

Missouri's Outdoors is Threatened, Dec.

Fairchild, Barbara, *Habitat Hint: Cedar Lodge Bed and Breakfast*, Almanac, Jan.

Habitat Hint: Gaudy but Great for Birds, Almanac, Sept.

Habitat Hint: Invite Hummers With Hot-Red Blossoms, Almanac, July

Habitat Hint: Rough-leaved Dogwood, Almanac, Oct.

Habitat Hint: Water for Wildlife, Almanac, May

Feilner, Veronica, *Educating the Educators*, Feb.

Fischer, Sherry, *Missouri Stream Team Reaches 3,000*, April

Fluchel, Robert W., *For Feet That Never Leave Asphalt*, Feb.

Gallagher, Elsa, *A-Hunting They Will Go!*, Nov.

Gardner, Gene, *Golden Anniversary Wetland Initiative*, March

Garner, Cindy, *Constructing With Care*, Oct.

George, John, Debra Burns and Erin Shank, *Whitetails in the City*, Oct.

Gillespie, Bob, *Nonnative Nuisance*, April

Graber, David and Andrew Raedeke, *Where are the Ducks?*, Jan.

Hadley, Brad and Steve Zap, *Agents in Action*, Nov.

Hamilton, Dave, *Mountain Lions in Missouri*, June

Hansen, Lonnie, *The Button Buck Dilemma*, Oct.

Hansen, Roger and John D. Hoskins, *Cooperative Conservation*, Vantage Point, June

Heisler, Kurt, *Agent Notebook*, Almanac, March

Hoskins, John D., *Important Places for Eagles and Chickens*, Vantage Point, April

Laying the Foundation for a Bright Tomorrow, Vantage Point, Sept.

Little Things That Make a Big Difference, Vantage Point, Nov.

Patience and Progress, Vantage Point, Feb.

Hoskins, John D. and Roger Hansen, *Cooperative Conservation*, Vantage Point, June

Jeffries, Aaron and Tricia Radford, *Uncovering a Gem*, Oct.

Johnson, Tom R., *Box Turtles and People*, July

Missouri's Constrictors, Dec.

Koenig, Ann, *The Celebration Continues*, June

Lancaster, Michael, *Agent Notebook*, Almanac, July

LeClair, Nichole, *Portrait of a Predator*, Feb.

Legler, Bob, Bill Anderson, A.J. Pratt and Chris Vitello, *What, Where and When . . .*, April

Loges, Brian, *Partnerships Put Conservation on the Ground*, Aug.

Low, Jim, *Northern Exposure*, March

Natural Gifts, Nov.

Sandbar Archaeology, July

Martensen, Rex, *Damage Control*, Feb.

McCord, Brad, *Learning From our Landowners*, May

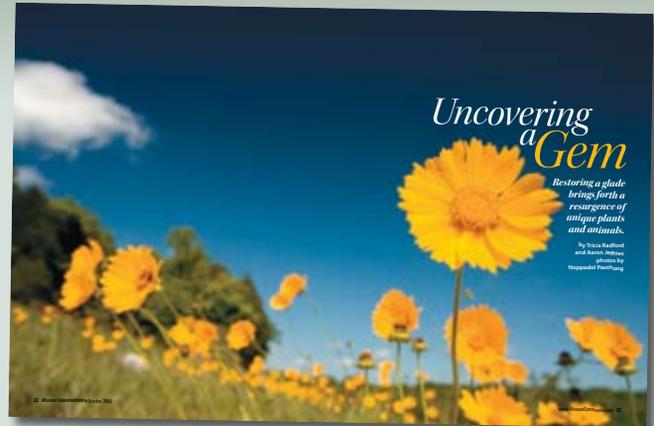
McKee, Joan, *Amazing Glades—Missouri's Mini Deserts*, Outside In, Aug.

Duck Counts, Outside In, Nov.

Home, Soggy Home, Outside In, May

Mussel Power, adapted from *Missouri's Freshwater Mussels*, Outside In, Nov.

Nature's Furry Wetland Engineers, Outside In, May



October 2006

No Tiny Turtle, Outside In, Feb.

Where to See Missouri's Glade Hot Spots, Outside In, Aug.

McKee, Joan and Bonnie Chasteen, *Smelly, Soggy, Super-Soaking Wetlands*, Outside In, May

Wade Into Missouri's Wonderful Wetlands!, Outside In, May

McKee, Joan and Jeff Briggler, *Invader Alert!*, Outside In, Feb.

Miller, John, *Purple Martin Mania*, March

Motley, Michelle and Bill White, *Better for Water, Better for Landowners, Better for Wildlife*, Dec.

CP33 Pays, Jan.

Peecher, Roger, *Agent Notebook*, Almanac, Feb.

Persinger, Jason and Bill Turner, *Don't Go With the Flow*, Dec.

Pratt, A.J., Bill Anderson, Bob Legler and Chris Vitello, *What, Where and When . . .*, April

Pridemore, Todd R., *Surprise Ending*, April

Pryor, Benny and Tom Skinner, *All About Captive Wildlife*, Aug.

Radford, Tricia and Aaron Jeffries, *Uncovering a Gem*, Oct.

Raedeke, Andrew and David Graber, *Where are the Ducks?*, Jan.

Reinke, Mike and Bonnie Chasteen, *The Buzz About Bugs*, Outside In, Aug.

Richards, Kevin, *CPR for Fish*, May

Rimer, Rhonda L. and Robert N. Chapman, *Woodland Wildlife*, June

Shank, Erin, Debra Burns and John George, *Whitetails in the City*, Oct.

Shifflett, Russ, *Agent Notebook*, Nov.

Skalicky, Francis, *Agent of Change*, Nov.

Skinner, Tom and Benny Pryor, *All About Captive Wildlife*, Aug.

Smith, Tim, *"I Found this Plant. . ."*, May

Smith, John, *Wildlife Code Changes*, Feb.

Steward, Dennis, *The Interstate Wildlife Violator Compact*, Vantage Point, May

Stimson, Bill, *Agent Notebook*, Almanac, Jan.

Strobel, Debbie, *Strength in Diversity*, Vantage Point, July

Taylor, Jim, *Agent Notebook*, Almanac, Dec.

Turner, Bill and Jason Persinger, *Don't Go With the Flow*, Dec.

Urich, David, *The "Firsts"*, Aug.

The Threshold of Goneness, Jan.

Vance, Joel, *The Seven-Year Night*, Sept.

Vitello, Chris, Bill Anderson, Bob Legler and A.J. Pratt, *What, Where and When . . .*, April

Vogel, John, *Off-Road Developers!*, May

White, Bill and Michelle Motley, *Better for Water, Better for Landowners, Better for Wildlife*, Dec.

CP33 Pays, Jan.

Wilson, Stephen J., *Finding the Balance*, Vantage Point, Aug.

Wollard, Keith, *Partnering for Wildlife*, July

Youngblood, Lynn, *Meet Joe Polka*, Aug.

Zap, Steve and Brad Hadley, *Agents in Action*, Nov.



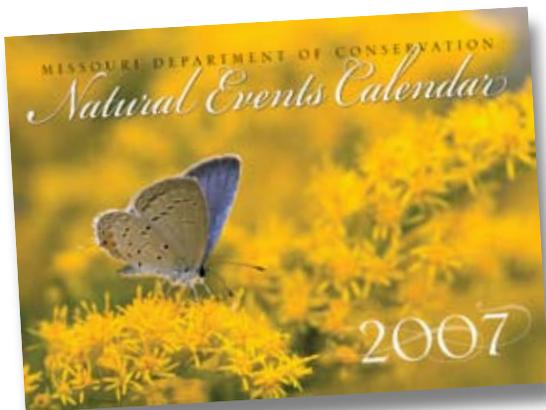
GIFT IDEAS

Stumped for holiday gift ideas? Consider these exciting new offerings from the Nature Shop.

- **Show-Me Bugs** (\$7.95)—Vibrant color is the hallmark of this guide to 50 cool insects. Macabre burying beetles, scary scorpionflies, terrifying tiger beetles and heroic-sized Hercules beetles inhabit this 132-page, hand-sized book, which also tells each species' life history. Buy this book during November or December and get a 20 percent discount.
- **Central Region Seedling ID Guide for Native Prairie Plants** (\$6)—This pocket-sized book's pages are made of heavy card stock. It has photos of 40 prairie plants, plus notes about habitat. Seven pages are devoted to seed photographs.
- **Trees of Missouri Field Guide** (\$7.50)—Color illustrations help you identify hundreds of trees. The backpack-sized book groups trees by leaf shape.
- **Echoes of Outdoor Missouri** (\$8)—Experience the sounds of Missouri's natural habitats with this 70-minute CD. You will hear everything from the soothing sounds of an Ozark stream to the eerie dance of the prairie chicken on your auditory journey along rivers, prairies and forests.

- **Forest Notecards** (\$4.50)—Detailed drawings of oak and sumac leaves silhouetted against a soothing pastel green background create a beautiful package for whatever greeting you choose to pen inside. Ten cards and envelopes per package.

These and dozens of other gifts are available at www.mdcnatureshop.com or by visiting a conservation nature center. While you are there, don't forget to pick up your 2007 Natural Events Calendar (\$5).



Agreement puts \$90,000 at landowners' disposal

A new cost-sharing agreement inked recently by the Conservation Department, Quail Forever (QF) and Pheasants Forever (PF) puts \$90,000 at landowners' disposal for farm practices that benefit quail and other upland wildlife. Each of the partners put up money to encourage private landowners to improve wildlife habitat. Practices that qualify for funding include fescue eradication, native grass establishment, invasive species control, establishing "covey headquarters," edge feathering and others. Qualifying landowners can receive up to \$1,500 in cost-share. In most cases, funding is targeted to areas near PF or QF chapters. For more information, contact the nearest QF or PF chapter or QF Wildlife Biologist Elsa Gallagher, phone 573/680-7115, or e-mail egallagher@quailforever.org.



Habitat hint: Predator protection

Hawks, owls, foxes, raccoons and snakes often get the blame for declining numbers of quail and other ground-nesting birds, but these predators are not the problem. Food-habit studies show that quail make up only about 2 percent of mammalian predators' diets and about 6 percent of the diet of the birds of prey that rely most heavily on quail. A much more important factor is lack of habitat. The same kinds of habitat that protect quail from predators meet many of the birds' other survival needs. One element often missing from otherwise good quail habitat is dense shrubby cover. Thickets of wild plum, blackberry, rough-leaved dogwood, sumac and hazelnut provide food, shelter and escape cover for quail. The shade they create discourages thick grasses and other growth that prevent quail movement.



Timber harvester training

Loggers, forest managers and landowners are welcome at the Professional Timber Harvester education programs sponsored by the Conservation Department and the Missouri Forest Products Association (MFPA). The day-long sessions are designed to help Missourians manage forest land safely, profitably and sustainably.

The program offers five courses:

- Forest Management covers best management practices, managing for long-term profitability and forest ecology and wildlife.
- Level I Professional Timber Harvester training covers protective equipment, saw use, maintenance and safety, benefits of controlled felling and bore cutting.
- Level II training includes establishing the notch and hinge when felling trees, use of wedges, assessing hazards, escape routes, chain filing and bar care and cutting spring poles.
- Level III training covers calculating tree lean limits, advanced cutting and wedging techniques on leaning trees and bucking and limbing methods.
- Level IV training covers advanced felling, planning efficient harvest layouts and use of powered forest management tools.

Classes run from 8 a.m. to 4:30 p.m. and are available from Feb. 7 through Nov. 7 at Mountain View, Sullivan, Winona and Macon. Class size is limited to 12, with registration on a first-come, first-served basis.

To register or get more information, contact the MFPA, 611 East Capitol Ave., Suite 1, Jefferson City, MO 65101, phone 573/634-3252, e-mail moforest@moforest.org, or visit www.moforest.org.

Cute as buttons

This year's Endangered Species Walk/Run held in October included a button



contest for children. Glades were the event's featured habitat this year, and the button contest encouraged children to learn about this austere but beautiful habitat and the plants and animals that live there. The competition drew more than 900 entries depicting various glade species. The functional artwork came

from 24 schools, many of which devoted classroom time to learning about glades. Conservation Department staff narrowed the field to 10 finalists in each age category, and those attending the Oct. 7 event voted to determine the winners. First-place winners (clockwise from top) were: Briann Bemis, 6 and younger; Rachel Coryell, 7 to 9; Justin Fielder, 10 to 12; and Erica Theissen, 13 to 18.

70 YEARS OF CONSERVATION

Recognizing seven decades of conservation achievement, Gov. Matt Blunt has proclaimed Nov. 3 Seventy Years of Conservation Day.

The proclamation was timed to coincide with the date in 1936 when an overwhelming majority (71 percent) of Missouri voters approved Amendment No. 4 to the state constitution. That amendment vested sole authority for the management of Missouri's fish, forests and wildlife in a four-person, bipartisan commission appointed by the governor.

The proclamation said that over the last 70 years, advancements in Missouri conservation have consistently brought national acclaim for accomplishments and professionalism in areas of species management, scientific research, beneficial practices on public land and private lands and conservation education. It noted that Missourians' decision to protect and conserve our fish, forest and wildlife resources also provides an annual economic benefit to the state economy of more than \$7.5 billion and supports more than 60,000 jobs.

Gov. Blunt's proclamation also noted that Missouri voters again amended the state constitution in 1976 to provide a one-eighth of one percent sales tax to fund conservation programs.

Urban deer harvest down, but youth harvest up

Hunters killed 1,348 deer during the urban portion of Missouri's firearms deer season Oct. 6-9 and 11,920 during the youth portion Oct. 28 and 29. The urban kill was the second-smallest since that season was instituted four years ago, but the youth harvest was the second-largest in the hunt's six-year history.

Boone County led this year's urban deer harvest totals with 312 deer checked. Webster County was second with 167, followed by Cole and St. Charles counties, each of which had 137 deer checked. Other county urban deer harvest totals were: Christian, 122; Greene, 101; Cass, 98; Clay, 77; St. Louis, 76; Jackson, 66; and Platte, 55.

Top counties during the youth deer season were Osage with 322 deer checked, Callaway with 259 and Pike with 226.

Hunters checked 11,927 birds during the fall firearms turkey season Oct. 1 through 31. That is down 10.4 percent from last year's harvest of 13,308 and 17.7 percent below the record of 14,487 set in 2002. High counties for the fall firearms turkey season were Franklin with 274, Henry with 217 and Greene with 195.



Outdoor Calendar

Hunting	open	close
Common Snipe	9/1/06	12/16/06
Coyotes	5/15/06	3/31/07
Crow	11/1/06	3/3/07
Deer		
Archery	11/22/06	1/15/07
Muzzleloader	11/24/06	12/3/06
Antlerless	12/9/06	12/17/06
Furbearers	11/15/06	2/15/07
Groundhog	5/15/06	12/15/06
Pheasant		
North Zone	11/1/06	1/15/07
South Zone	12/1/06	12/12/06
Quail	11/1/06	1/15/07
Rabbits	10/1/06	2/15/07
Ruffed Grouse	10/15/06	1/15/07
Squirrels	5/27/06	2/15/07
Turkey, Archery	11/22/06	1/15/07
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see www.missouriconservation.org/hunt/wtrfowl/info/seasons	

Fishing

Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/27/06	2/28/07
impoundments and other streams year round		
Gigging nongame fish	9/15/06	1/31/07

Trapping

Beaver	11/15/06	3/31/07
Furbearers	11/15/06	2/15/07
Otters & Muskrats	11/15/06	see <i>Wildlife Code</i>

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. This information is on our Web site at www.MissouriConservation.org/regs/ and at permit vendors.

The Conservation Department's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800/392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to www.wildlifelicence.com/mo/.



OPERATION GAME THIEF

1-800-392-1111

AGENT NOTEBOOK

Each year, commercial meat processors send the Missouri Department of Conservation a list of people who have not picked up their processed deer meat from last year's deer season.

The *Wildlife Code* contains a regulation that says, "processed deer meat must be collected by May 1st by the owner following the season when taken."

Commercial deer processors provide a vital service for Missouri's sportsmen. They process thousands of pounds of venison for human consumption each year. In addition, meat processors are an important component of the Share the Harvest program, which encourages hunters to donate processed venison to the needy.

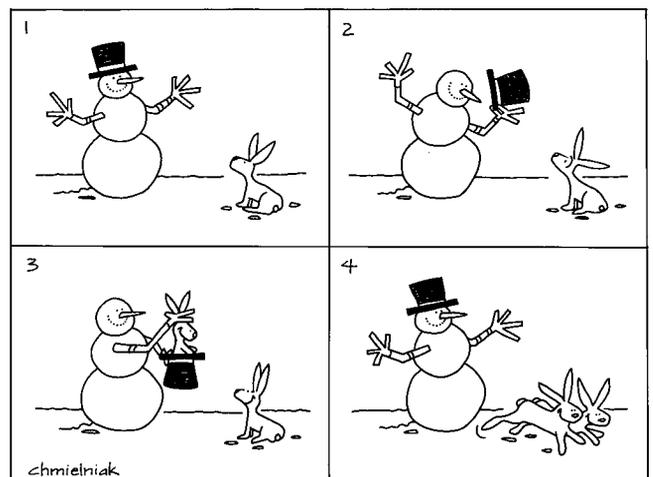
In order to keep their Commercial Deer Processing Permit, meat processors must follow strict rules and regulations. State law requires them to contact the Conservation Department when hunters have missed the deadline for picking up their processed deer.

Most deer hunters know the rules and regulations regarding possession, storage and processing of deer meat. However, there are some who fail to follow these requirements. Sometimes they forget, they move away, or they don't have enough money to pay processing fees.

Conservation agents have the responsibility of locating people who have abandoned their deer meat. Wasting deer meat is not only against the law, it is a waste of a good resource. —*Jim Taylor, Jackson County*



To learn about bobwhite quail management and Missouri's quail recovery efforts, check out www.missouriconservation.org
Keyword: quail

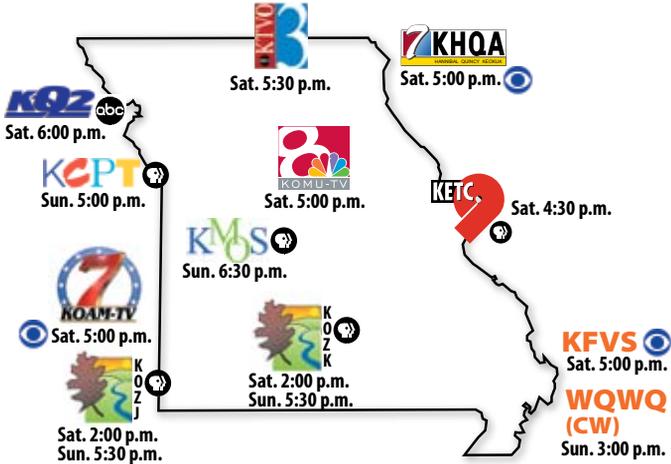


Meet Our Contributors



Program Schedule

Television the way Nature intended!



For additional show information and video clips, be sure to check our Web site at <http://mdc4.mdc.mo.gov/tv/>.

SHOW SCHEDULE

Dec. 2 & 3—BIRD BANDING

Meet some folks that take an up-close approach to our fine feathered friends.

Dec. 9 & 10—TURKEY HUNT

Enjoy springtime turkey hunting in the Show-Me State.

Dec. 16 & 17—WALLEYE

Travel the state in search of walleye and catfish.

Dec. 23 & 24—SHARE THE HARVEST

From nature's bounty, hunters are helping to feed the hungry.

Dec. 30 & 31—FISHING WITH THE PROS

Get valuable tips while fishing on Table Rock and Bull Shoals lakes.

Jan. 6 & 7—QUAIL HUNT OPENER

Follow a quail hunter on his 68th-straight season opener.

OTHER OUTLETS (Previously aired episodes are also shown on the following)

Blue Springs CTV7
 Branson Vacation Channel
 Brentwood BTV-10 Brentwood City Television
 Columbia CAT3
 Columbia Columbia Channel
 Hillsboro JCTV
 Independence City 7 Cable
 Joplin KGCS-TV57
 Kearney Unite Cable
 Malden Ch 21
 Maryland Heights MHTV-10
 O'Fallon City Cable
 Parkville GATV

Perryville PVTV
 Platte City Unite Cable
 Poplar Bluff Poplar Bluff City Cable
 Ste. Genevieve Ste. Genevieve Cable
 St. Charles SC20 City Cable
 St. Louis Charter Cable
 St. Louis Cooperating Schools Cable
 St. Louis City TV 10
 St. Peters St. Peters Cable
 Springfield MediaCom
 Sullivan Fidelity Cable
 West Plains OCTV



Tom Dailey has served as a resource scientist for the Department since 1987. He and his wife, Sandy, and their five dogs live in Boone County. When not bird hunting, he gets out the kayak, mountain bike, turkey call and cross-country skis for recreation, and a chain saw and drip torch for savanna restoration.

Tom R. Johnson retired as the Department's state herpetologist in 2000. He is the author and illustrator of *The Amphibians and Reptiles of Missouri*, published in 1987 and revised in 2000. He lives on a small Ozark farm in Wright County. He claims to have a "prize-winning crop of rocks and weeds."

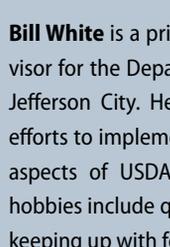


Michelle Motley lives with her husband, Bill, and her son, Jonathan, on a farm near Rocheport. She is a program specialist in conservation with the Missouri Farm Service Agency. In her free time, she enjoys bicycling, riding horses and spending time with her family and friends.

Jason Persinger is a resource scientist working out of the Department's Grassland Field Station in Clinton. He truly enjoys working on streams, which he sees as some of our most valuable resources. He enjoys hunting, especially waterfowl, fishing and generally being outdoors as much as possible.

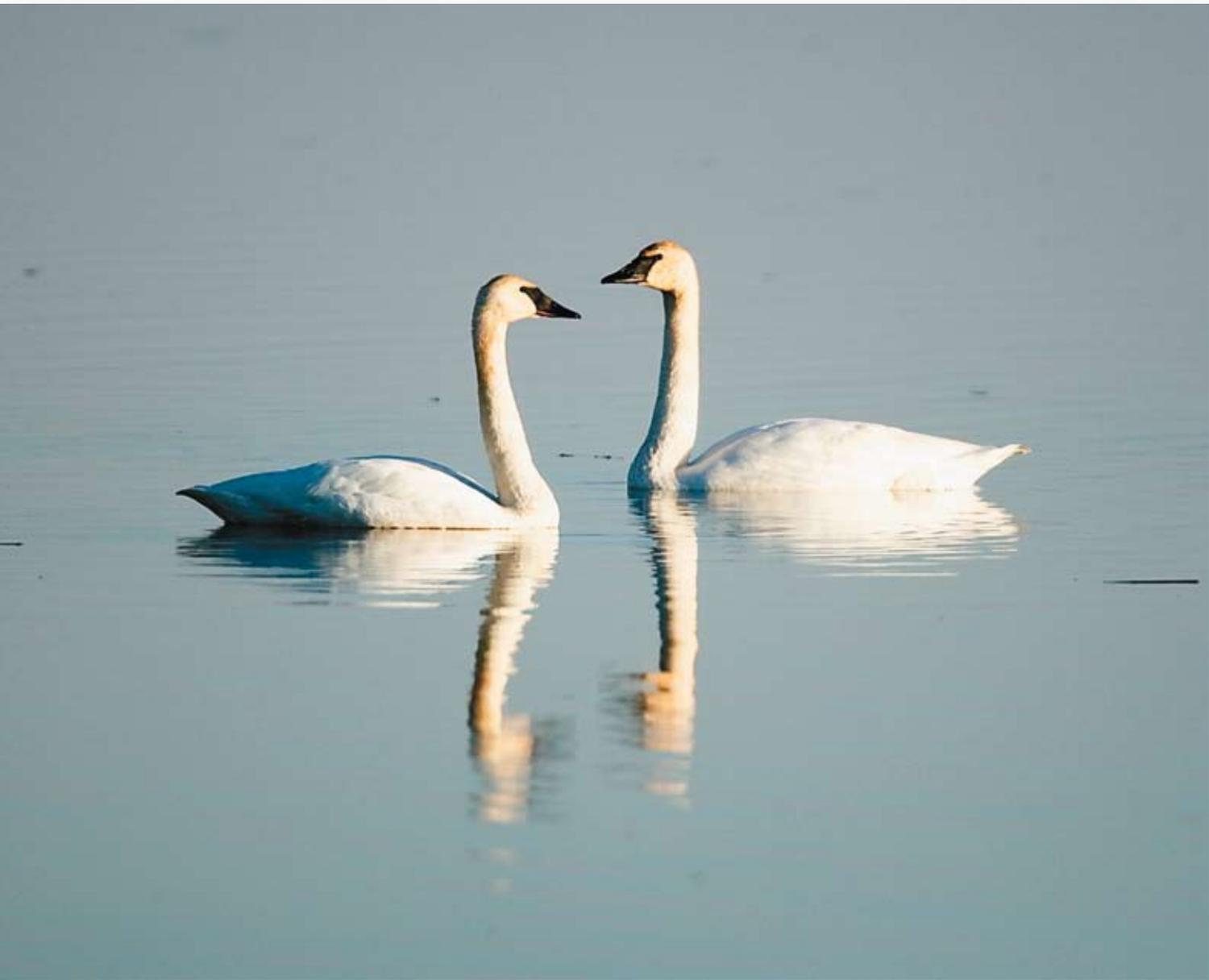


Bill Turner is a fisheries program coordinator who focuses on rivers and streams. He also serves as the administrator for the Sedalia Department of Conservation office. He enjoys spending time with his wife, Carol, and their two sons, Andy and Nick. Hunting and fishing are favorite pastimes.



Bill White is a private land programs supervisor for the Department of Conservation in Jefferson City. He coordinates Department efforts to implement fish, forest and wildlife aspects of USDA Farm Bill Programs. His hobbies include quail hunting, camping and keeping up with four sons.





Trumpeter Swans

The largest waterfowl species in North America, trumpeter swans can be found along the Missouri River in northwestern Missouri. —*Noppadol Paothong*



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Missouri households*